NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN Editor.
HENRY F. FRENCH, Associate Editor.

CALENDAR FOR FEBRUARY.

In some ancient calendars, February occurred last in the order of the Months. Being, as it always is, fractional at best, and somewhat irregular as to its number of days, but, omnibus like, always having room for "one more," in case the almanac makers happen to have an extra day on hand, it might seem that the rear was the most appropriate place for this month. Why it was changed from the bottom of the column to its present rank of second in the order of precedence, we have forgotten, if we ever knew. One reason, however, is suggested for the adoption of the present arrangement. As it now stands, the shortest month comes in the coldest and most stormy portion of the whole year. As we stamp our feet, and slap our hands in the biting cold of a February morning, it is encouraging to think, and we often tell the boys to remember, that February hath only twenty-eight days, and will soon be gone!

The Month, then, upon which we now enter, being a short and a cold one, what shall we do with its few brief days, and long, cold nights?

Time, it has been said, is money; and even the poets talk of its golden sands. But time is money to those only who resolutely turn it to a good account. To the bear which dens up in the fall, and sleeps unconsciously all winter, or to those ants so often found in logs of wood at this season, stiff and motionless, time is not money. Nor will time be money to us if we pass the winter as these creatures do. And there is danger that we may spend this season even more unprofitably; for, unlike these hibernating animals, we cannot doze all winter, and then wake up in the Spring as bright as ever. Progress is the law of our being; and progress, either forward or backward, we are making constantly.

This season of the year,—"the dead of winter," as it is sometimes called,—when frost and snow have possession of our fields, and we find ourselves able to do but little directly towards the improvement of the soil, is a most fitting opportunity for the prosecution of that other branch of our business, the improvement of the mind. The very elements now so fiercely warring without, conspire to drive thought home, so that these long evenings have been aptly termed the seed-time of the laboring man's intellectual harvest. A seed-time and a harvest, which, unlike those of his fields, intermingle the one with the other, and in which men not only reap *what* they sow, but *as* they sow—the grain ripe for the sickle springing up while the seed is being planted; scions from the tree of knowledge grafted into the mind bearing fruit even before the stock and the branch are firmly united.

It is not because we fear that our readers are insensible to the importance of mental culture that we make these remarks. They all know that knowledge is power. There is not one who does not desire that wisdom should be first on the list of his accumulations. But, by our own experience, we know that after a day's exertion of the bodily powers, it requires the impulse of a strong will to keep the mental faculties busy while the hands rest. It is to encourage the putting forth of this power of the will—this determination to know, which is sometimes strong enough to overcome the fatigue of the body—that we now allude to the subject. We believe that the force of the supposed antagonism between the labor of the hands and

that of the brain is greatly over-estimated. The celebrated Scotch stone-cutter, Hugh Miller, confessed that he found it far more difficult to put his mind down to hard study and to keep it there after he entered upon the duties of bank clerk, than it was while he worked steadily at his laborious trade. The difficulties experienced in attempting to study, after a day's labor with the hands, arise less from the fatigue of the body, than from the want of the habit of systematic application. The formation of the habit of applying the mind steadily to any given object is the great design of the whole "course and discipline" of our highest seminaries of learning. Every moment, then, that the mind of the laboring man is made to grasp an idea or a thought firmly is so much gained towards making the next attempt to study easier, and the next grasp of the mind firmer and more continuous; so much, in fact,—though those moments may be employed in the humble dwelling of the farmer,—towards an education.

That it is not only the privilege, but the duty of all, to take some time and some pains to improve the mind, is most forcibly indicated by the well established fact that the liability of sinking, in old age, into that most pitiable condition known as "dotage," or "second childhood," is pretty much in proportion to the neglect of the exercise of the intellectual faculties in middle life. But reading and study alone are not enough. The current of thought which they set in upon the mind must flow out, or the stream becomes stagnant. We must speak or write as well as read, or we tire of the latter.

"Mind with mind must blend and brighten,"

or it becomes weak and dim. At his creation it was said, "it is not good for him to be alone." It is also a law of his nature that he should give as well as receive, and in the former he is often more blessed than in the latter.

Hence the necessity and advantages of social intercourse in all its improving forms. Hence, too, the necessity of farmers' clubs, which we have so frequently recommended, and of that more familiar intercourse between neighbors, especially in sparsely settled agricultural districts, which each one probably desires, but which has been so long neglected that all settle down in the conviction that nothing can be done to make the neighbors more social and friendly. Perhaps something can be done this month to break up this stiff crust of apparent indifference.

But at present our object is rather to recommend that some of the spare hours of February be employed in the vigorous exercise of "speaking with the pen." This has advantages over oral speech which we shall not now stop to particularize, further than to quote the following lines:

"To remember, write; to be accurate, write; to know your own mind, write;
Hast thou a thought upon thy brain, catch it, while thou canst!
The commonest mind is full of thought, some worthy of the rarest,
And could it see them once in words, would wonder at its wealth."

One of the most effectual remedies for a poor memory, so often complained of, is unquestionably the practice of writing. Franklin fixed his style by reading a page or two of the Spectator, then writing it from memory, and afterwards comparing it with the original. With such a purpose in view, we shall read carefully, and the truth will soon be discovered that it is owing to our bad habits of reading, rather than to a poor memory, that we forget so much.

We believe, also, that the "commonest mind is full of thought," and that the world has lost much from the inability—which a little practice would have remedied—of many a good man to put his thoughts on paper in such a manner that the writer could see,

"Smiling upward from the scroll,
The image of the thought within the soul."

It has been observed, that to come into contact with other minds—to move them by a silent influence—to exercise a spell over those we have never seen and never can see, and when the hand that wrote is still forever,—is a most wonderful prerogative, and one well worth striving for.

As an application of these remarks, we would urge farmers to write for agricultural papers. Never mind if your expressions are not quite as elegant as you could wish. Don't give up on that account. Practice makes perfect. The Editor will correct any little verbal improprieties. Give the facts. Give your experience. Give them as briefly as possible. The value of the *New England Farmer* has always been in a great measure dependent on the contributions of practical, hard-working farmers. It still depends on them. Many may find leisure time for this purpose in the Month of FEBRUARY.

PLEURO-PNEUMONIA.

In the last number of the *Mark-Lane Express*, London, the editor says that "the lung sickness or consumptive disease is spreading among cattle in Australia. M. Jourdier, a French agriculturist, who has recently visited Russia professionally, states that so great are the ravages committed by this disease, that in one large village, which he cites as a by no means uncommon instance, the inhabitants had lost literally the whole of their stock at the time of his visit. He was assured that in 1859, Russia lost upwards of 3,000,000 head of cattle by this disease, and the official returns admitted that the loss amounted to 1,600,000 head between January and November of that year. M. Jourdier states that the disease may be greatly

mitigated, if not altogether prevented, by inoculation. The disease has also appeared in New South Wales. Well may our people be grateful that we escaped this terrible scourge with so little loss. The prompt energy of our State government saved a vast amount of property to our citizens.

For the New England Farmer.

THE RELATIVE VALUE OF DIFFERENT VARIETIES OF CORN.

MR. BROWN :—Corn being the subject of discussion at a late meeting of our "Farmer's Club," it was stated that there was a great difference in the weight and measure of different kinds; it was also contended that as much could be obtained from a bushel of ears of twelve-rowed as of eight; to settle the questions, a committee was chosen and instructed to weigh and measure different samples of corn, keep an accurate account of the same, and make return to the club.

The committee attended to their duty faithfully, providing themselves with a bushel basket, (not sealed, but holding sixty pounds of potatoes when even full,) a half bushel measure, sealed, and a set of scales; they proceeded to the residences of farmers' in different sections of the town. Their manner of procedure was to select sound, handsome corn on the ear, sufficient to fill the basket after being thoroughly shaken down, until the corn was even with top of rim at the sides, and slightly crowning in the middle; this was weighed, after which the weight was ascertained of the corn carefully shelled; then the half-bushel measure was filled with the shelled corn, which was weighed. This result was not entirely satisfactory, as in some instances the cobs were somewhat green and the corn moist; it will be repeated in April. It may not be generally known that a measure of damp corn will weigh less than if filled with dry.

The result of the committee's labor is here annexed:

No. 1—1 bushel basket of ears 8 rowed corn weighed....45¼ lbs.
Cob of same weighed..... 9 "
Whole amount of shelled corn weighed.....36¼ "
¼ bushel of " " " .....20 "

No. 2—1 basket of ears 12 rowed Dutton corn weighed...46¼ lbs.
Cob of same weighed..... 9¼ "
Whole amount of shelled corn weighed.....37¼ "
¼ bushel of " " " .....23¼ "

No. 3—1 basket 8 rowed white and yel. mixed weighed..43¼ lbs.
Cob of same weighed..... 7¼ "
Whole amount of shelled corn weighed.....36 "
¼ bushel of " " " .....20¼ "

No. 4—1 basket 12 rowed Dutton corn weighed.....45¼ lbs.
Cob of same weighed..... 8 "
Whole amount of shelled corn weighed.....37¼ "
¼ bushel of " " " .....23¼ "

No. 5—1 basket 8 rowed "King Philip" corn weighed...47¼ lbs.
Cob of same weighed..... 9 "
Whole amount of shelled corn weighed.....38¼ "
¼ bushel of " " " .....23½ "

No. 6—1 basket 12 rowed "Hyde" corn weighed.....45 lbs.
Cob of same weighed..... 9 "
Whole amount of shelled corn weighed.....36 "
¼ bushel of " " " .....23¾ "

No. 7—1 basket 8 rowed yellow corn weighed.....47¼ lbs.
Cob of same weighed..... 8 "
Whole amount of shelled corn weighed.....39¼ "
¼ bushel of " " " .....20¼ "

No. 8—1 basket 12 rowed "Dutton" corn weighed.....48 lbs.
Cob of same weighed..... 7½ "
Whole amount of shelled corn weighed.....40½ "
¼ bushel of " " " .....20¾ "

No. 9—1 basket 8 rowed "Canada Improved" corn.....50¼ lbs.
Cob of same weighed..... 8¾ "
Whole amount of shelled corn weighed.....42½ "
¼ bushel of " " " .....30½ "
Whole amount measured.....22¼ quarts.

Taking the first 8 samples the average weight of the eight and twelve-rowed corn is as follows:

CORN ON THE COB.

Four samples of 8 rowed corn, average weight.....46¼ lbs.
" " 12 " " " " .....46¼ "

WHOLE AMOUNT SHELLED.

Four samples of 8 rowed corn, average weight.....37 13-16 lbs.
" " 12 " " " " .....37 13-16 "

HALF BUSHEL SHELLED.

Four samples of 8 rowed corn, average weight.....29 lbs.
" " 12 " " " " .....28 13-16 "

WEIGHT OF COB.

Four samples of 8 rowed corn, average weight.....8 7-16 lbs.
" " 12 " " " " .....8 7-16 "

It appears that the average weight of the first eight samples is almost precisely the same, going to prove that which is not generally credited, that twelve-rowed corn will produce as much, bushel for bushel, on the cob, as the eight-rowed.

Sample No. 9 being of the Canada improved variety, so far exceeds in product *any* of the other lots, that it is not included in the average.

HENRY H. PETERS.

Southboro', Dec. 21, 1861.

WANT OF SOCIABILITY AMONG FARMERS.

We hear great complaints among the farmers in our rural districts of the secluded life in which they live for the want of that good neighborly sociability to which they had been accustomed in their "old homes." This is, of all others, the last kind of complaints that should arise; and all that is needed in every community to bring about the needed reform, is for the residents in each neighborhood to throw off that cold formality and reserve, and visit each other in the true spirit of kindness, and make known the value of social intercourse. The loss to every community where there are no neighborly visits made from house to house, cannot be computed in dollars and cents, for not only is there a pecuniary loss to a large amount, by reason of a non-exchange of the general information upon farming topics, but there is a loss of intellectual and moral wealth, and of the highest social amenities of life that can never be estimated, and when lost can never be recovered. It is to be hoped that those who have felt the want of this higher life, will not permit the present winter to pass away without making an effort to establish each in his own circle a series of friendly family visitings.—*California Farmer.*

U. S. AGRICULTURAL SOCIETY.—On Thursday, January 9, the United States Agricultural Society, in session at Washington, re-elected President Hubbard, Secretary Poore, Treasurer French, and nearly all the old Vice Presidents. The Executive Committee was re-organized, and consists of Marshall P. Wilder, of Massachusetts, Fred. Smythe, of New Hampshire, Isaac Newton, of Pennsylvania, Charles B. Calvert, of Maryland, Le Grand Byington, of Iowa, J. H. Sullivan, of Ohio, and M. Myers, of California.

For the New England Farmer.

STRAW HIVES.

MR. EDITOR:—The article with the above heading, some months since, in the *Farmer*, called out some remarks from Mr. Brackett, that deserve some notice, even though it may have been nearly forgotten in the long time since it was written. I propose to examine the principles involved, a little farther. I will endeavor to avoid personalities, and hope you will have patience to hear me through. I am not sure but what we bee-keepers ought to be indulged to a reasonable extent in *pointed* remarks, rather more than most of your correspondents, seeing that we have a daily example of *short* and *sharp* arguments in resentment of all insults, real or imaginary. Even the *stinging thrusts* of Mr. Kidder and Mr. Brackett are not without some benefit. Mr. Kidder, having a hive and book, promises us, if we will read the one, and use the other, a thousand impossible things, and we that know no better, are induced to expend our money, and expect in return a part at least of the bright promise. Mr. Brackett interposes, and exposes the fraud for our benefit, but in doing this, perhaps he says a *little* more than is necessary. Then it seems proper for Mr. Kidder to point out these excesses. Now it may be, that these gentlemen, accustomed to the sting, cannot write very well without showing it. If this should be so, had we not better tolerate the whole, than to refuse to hear them altogether? The subject being a dry one, might not be relished without the spice. These criticisms also serve to call attention to the subject, and consequently promote more or less investigation. In the straw hive that I recommended, I presumed there were several advantages. Mr. Brackett saw, or thought he saw, serious objections, and has given them to the public. It is hardly possible to read over the list, together with my remarks, without investigating the principles somewhat, and be better qualified to decide whether straw hives are an advantage, or otherwise.

That part of Mr. Brackett's article to which I wish to call attention, commences with these remarks: "Judging from an article in your paper of the 13th, it would appear that a new and fruitful field is to be opened for patent hives, and Mr. Quinby, who has hitherto had a holy horror of patent hives, now summons to his side the innumerable host of inventors. He assures us that he has, at the present time, a straw hive, adapted to improved bee-culture, and if he cannot get a better one, he will shortly give us a description of it. Before the country is deluged with these new patent hives, I should like to look into them, and see in what the advantage, if any, consists. Mr. Quinby says, 'that they are warmer in winter, and cooler in summer.' I will leave this assertion for some future occasion, still satisfied in my own mind, that it is like the Irishman's grog, that kept him warm in winter, and cool in summer, and was good at all times." I am sorry he left to a future occasion, the exposition of this fallacy, if it is one, because, despite the ridicule attempted, the principle is just as tenable as before. As I intend to give the promised description, it would have been well for your readers to clearly comprehend all the real objections against the hive, before any one is induced to make it. The assertion, however, was a quotation from Mr. Langstroth—"Hive and Honey Bee," page 331, revised edition. "Straw hives have been used for ages, and are warm in winter, and cool in summer. The difficulty of making them take and retain the proper shape for improved bee-keeping, is an insuperable objection to their use." It being an assertion of Mr. L., proves nothing further than that the principle is more generally recognized than Mr. B. supposed.

Again, I say that straw hives absorb moisture as generated by the bees, and save them the warmth they have generated. Mr. B. replies, "If this is true, its author has added a new chapter to the philosophy of heat and moisture. I had supposed that when a body was sufficiently porous to allow moisture to pass freely through it, that there was a good deal of danger that any amount of heat inside of such enclosure would be likely to go the same way." Now I recognize this principle as the true one. I would suggest that the "new chapter to the philosophy of heat and moisture" was discovered long ago, and has been acted on for centuries. Is it not an acknowledged fact, that solid bodies are much better conductors of heat than porous? To illustrate. Handle a piece of iron and a piece of wood. Put on a coat of India rubber, or one of wool, one impervious to air and water, the other admitting the passage of both; one conducts away from the body the insensible perspiration, and retains the warmth; while with the other, the effect is exactly reversed, the moisture is retained while the heat is thrown off. We recognize this principle in the rubber shoe; instead of using it for warmth, it is put on as a protection against water. A garment of linen or cotton conducts heat much more rapidly than one of wool. Perhaps the fact that the fibres lie more compact, would explain the cause. Air is considered a poor conductor of heat. We readily succeed in warming a room, but it is when the heated particles can move from the fire—forming a current of air—and give place to others that become heated in turn. But confine air, in what is called a dead air space, as we do in the walls of a house, or, if you please, confine it to the little cells in a woolen garment, and the heat is very slowly passed. Now I conceive that straw, as a material for a bee-hive, will act on the same principle; the thousand little air-cells are so many dead air spaces, which prevent the escape of the warmth, and yet allow the passage of moisture. I speak comparatively, for some warmth, of course, will escape, but nothing like what will go when the holes in the top of a wood hive are opened. The moisture from the bees must be got rid of. I can readily conceive how a hive, with the boards of it thoroughly water-soaked, would conduct away the heat much faster than when they became thoroughly dry. In one case, the pores of the wood are filled with water, and become a good conductor, like a wet garment; in the other, the pores become filled with air, and the heat passes slowly. When a current of air is established, as in the wood hive, when the holes are opened in the top, to get rid of the moisture, as a matter of course, the heat will move with it. Hence the advantage of some material that will retain the one, and dispose of the other.

But Mr. B. says, "Place a swarm of bees in a straw hive, and they will do very different from any bees I have ever seen, if they do not line the inside with propolis, a substance impervious to air

and moisture." Whether this objection is as extensive as apprehended, is yet to be proved. I know that the little niches where the straws lie together, are filled with it, but whether the smooth rounded surface of the straw is sufficiently coated to prevent the absorption of moisture, is not determined. But should this be the case, and the objection remain in full force, it is so easily obviated that it amounts to next to nothing. To remove it, we have only to take out the combs—they are movable—and put them into some other hive for a short time, and apply boiling water. Or, suppose—as the advantages of straw are claimed mostly for winter and spring—that at the beginning of summer, and before any propolis is gathered, we change the combs to a wood hive, and again return them on the approach of cold weather. The top being of straw, is unsuitable for the surplus honey boxes, and of necessity is taken off when they are used. This will be in proper condition whenever put on in cold weather.

The only advantages that Mr. B. can see in a straw hive, are its dome-like shape, and that it cannot be easily robbed of its stores. The conical shape allows the moisture, as it "condenses at the top, to run down the sides of the hive, instead of dropping down among the bees and comb." If its superiority was here, it would seem that when we opened the holes in the top of a wood hive, and let the moisture ascend into the chamber, condense, and pass out, it would be as effectually out of the way of the bees, as in running down the sides of a conical shaped straw hive. If keeping the moisture from the bees and comb was all, we should have the same thrift as with the straw hive. But it is not here.

That bees swarm ten days earlier in straw hives, "is not confirmed by many who have the straw hive side by side with wood, when no boxes are used for surplus." Here appears to be an acknowledgment that they do swarm earlier than some others. Now what is the cause? He says no boxes are used for surplus. Whether it is the room that the boxes afford, on taking the honey, we are left to infer. If he means the room, I would say that not one-half of the stocks go to work in the boxes before swarming. If the honey taken away, not one in a hundred is robbed before that time. Can it be shown by experience, or any course of reasoning, that when the hive is full, and the bees clustered outside doing nothing for want of room, that an extra box filled, and even removed at such a time, will make any perceptible difference in the issue of the swarm? If there should be a difference, it would be likely to be in favor of the earlier swarm. In good seasons, it is often the case that too many of the brood combs are stored with honey, instead of being filled with brood, thereby retarding the increase of bees, and consequently making the swarm later.

"Mr. Quinby says that the best material for a hive is *straw*, and that he has clearly shown it." I would like to qualify this, by saying *available* material. Perhaps there are many other materials better, if we could only afford them. On this point, I would quote a little further from Langstroth. "The *lighter* and more spongy the wood, the poorer will be its power of conducting heat, and the warmer the hive in winter, and the cooler in summer." "A serious disadvantage attending all kinds of wooden hives, is the ease with which they conduct heat, causing them to become cold and damp in winter, and, if exposed to the sun, so hot in summer as often to melt the combs." From these remarks, I can easily imagine that Mr. L. would have recommended straw, if any shape "adapted to improved bee-culture" had been suggested.

Mr. B. offers his last argument thus: "I am by no means sure that there is any real advantage in a straw hive. Certainly not, if the form is to be changed." I would say, *certainly not*, unless the form *is changed* from the old dome to one adapted to improved bee-culture—the surplus boxes, and movable combs.

Mr. B. concludes with the following compliment: "It is with some reluctance that I differ with Mr. Quinby. My first ideas of bee-keeping were derived from him, and I might still have regarded him as undoubted authority, had not accident thrown in my way the Langstroth hive, by which I learned more in one season, than I should have found out in a life-time, by using the twelve by fourteen box hive. As it is, I trust Mr. Quinby will not blame me, if I am not tickled with his straws." By this it seems that my authority might have yet been "undoubted," had it not been for that Langstroth hive by which he learned so much in one season. Now, without pretending to be infallible, I would like Mr. B. to tell us wherein he has proved my authority fallacious? Has he not, on the contrary, with the help of these movable combs, verified many points that would tend to establish it? What he has discovered *really new*, if he would make it public, I would be one of many to heartily thank him for. These things I have a right to ask. As for blaming him for not being "tickled," I am not in the least disposed that way. If he chooses not to use the better hive, the consequence will be with him, not me. I shall not gain or lose one cent, if he does, or does not use it. I am not the interested patent vender that will fail to make a V, if he fails to be persuaded. Perhaps he will feel less prejudice towards this hive, when he understands that it is still claimed as the Langstroth hive. M. QUINBY.

St. Johnsville, N. Y., Dec., 1861.

For the New England Farmer.

CULTURE OF THE KOHL RABI.

MR. EDITOR: — My boys, the past season, sowed a few seeds of kohl rabi in a bed, and transplanted them in drill, about the first of August. The weather was very dry, and the plants had a hard struggle for life, for a number of weeks. As soon as we had rains they revived, and when gathered, the middle of November, yielded near four times the quantity, on the same surface, as carrots along side of them. I have not any experience with this root. The yield is satisfactory, but I think they will require more careful preparation or cutting up, before feeding, than other roots, as they appear to be very hard. If, as is alleged by those who have fed them to milch cows, they impart no flavor to the milk, as turnips and cabbages do, I shall regard the kohl rabi as an important acquisition to our farm crops. Brother farmers, send to the *New England Farmer* your experience in the culture and use of this root. O. K.

Rochester, Mass., 1861.

TRAINING STEERS.

A correspondent of the *American Stock Journal* gives his experience in the training of steers. He says they should be—

1. Accustomed to your presence.
2. Trained to be yoked—to travel in the yoke, and turn right and left at command.
3. Trained to work.

The first should be accomplished long before "breaking," as it is termed; if, however, it is not, it may be very easily done by handling the animal—if it must be by force, *handle*, always being deliberate and careful in action, and never be thrown off your guard so much as to strike or kick. The creature will soon learn he has nothing to fear—now let him know he has something to gain, by giving him a nubbin of corn, or scratching his neck, back, etc. Whenever you undertake to handle an animal, accomplish what you undertake; and if you have any doubts as to the result, do not begin until you have force enough to be sure of success. If you do begin, and fail at first, persevere until you finally conquer—that's the word—*conquer*.

Any animal is a long time forgetting a triumph. I would rather teach ten wild steers to handle that have never been tampered with, than one that has once come off "best." The most skilful man we ever saw at handling cattle, did it with the least expense of feeling to them, and yet, when they refused to perform, he used the most imperative force to compel obedience. An animal came from his hands tamer and more gentle than from one who resolves not to force. Use then force enough—do what you attempt, but be always mild and gentle—show no temper.

Training to the Yoke.—This is easiest and best done in the barn-yard. Drive them quietly around for a considerable time—mind, you drive them, if not they scamper where they like, without perceiving that you are master. After half a day of such driving, many steers will submit to be yoked, by the driver alone, and wild ones will soon be so wearied as to be readily yoked. In this regard you have to judge whether best to yoke by calling in help, or keeping them going until you can yoke them by yourself. When you have them yoked be gentle with them—let them know you are master—keep them going until weary, but very little after.

It is easy to learn steers to turn right and left, when you have them in the yard under your control. Touch the near one when you wish them to go the right—the off one when to the left; or if you wish them to turn about, start one ahead quick by a touch, while you motion the other back at the same time.

Training Steers to Work.—This is by far the most critical part of "breaking steers," and should be accomplished by gradual approaches, being careful not to worry nor weary them. Suit their tasks to their strength and endurance, and have patience now, that when they are fully grown, they may not be prematurely "old cattle." How many pairs of so-called slow cattle, are really so? They are old in appearance, and slow, because when young, their spirit was destroyed by overwork. Cattle are more unfitted than any other animal to severe labor before attaining their full growth and constitutional development.

In breaking steers, bear in mind that you must subdue their will, but maintain unimpaired their natural animal spirits.

One year ago we trained two pairs of steers; one pair was wild, and had to be caught with the lasso. This pair we had gentle and tractable in one week, and yet one of them possessed an almost unconquerable will. In getting him home we yoked him with his mate and could not drive them. We then hitched a strong pair of oxen ahead and drew him—he part of the time sliding on the ground, and part of the time pulling back all he was able, but firm; and in one hour he was subdued, and we had no further trouble with him.

In training steers, use all the force necessary to bring them under your control; then gentle them by being mild and gentle yourself. No animal thinks less of you for conquering, if you do not abuse your superiority.

THE SNOW STORM.

Announced by all the trumpets of the sky,
Arrives the snow, and, drifting o'er the fields,
Seems nowhere to alight; the whited air
Hides hills and woods, the river and the heavens
And veils the farm-house at the garden's end.
The sled and traveller stopped, the courier's feet
Delayed, all friends shut out, the housemates sit
In a tumultuous privacy of storm.
Come, see the north-wind's masonry!
Out of an unseen quarry, evermore
Furnished with tile, the fierce artificer
Curves his white bastions with projected roof
Round every windward stake, or tree, or door;
Speeding the myriad handed, his wild work,
So fanciful, so savage, naught cares he
For number or proportion. Mockingly,
On coop or kennel he hangs Parian wreaths;
A swan-like form invests the hidden thorn;
Fills up the farmer's lane from wall to wall,
Maugre the farmer's sighs; and, at the gate,
A tapering turret overtops the work;
And when his hours are numbered, and the world
Is all his own, retiring as he were not,
Leaves, when the sun appears, astonished Art,
To mimic in slow structures, stone by stone,
Built in an age, the mad wind's night work,
The frolic architecture of the snow. *Emerson.*

THE ASHES OF VEGETABLES.

In chemistry, all elementary bodies are divided into two classes, viz.: *metals* and *metalloids*, or substances which in their character are non-metallic. As yet, only a very few of the elements known to chemists have been recognized in the ashes of vegetables. Those which have been detected in the residuum which remains after combustion, are, phosphorus, chloride, iodine, silicon, sulphur, bromine, potassium, calcium, sodium, magnesium, iron, manganese and fluorine. Iodine and bromine are found only in the ashes of marine plants, —kelp, seaweed, &c. When found, however, these substances are never in a simple, isolated state, but in combination with oxygen, (with the exception of iodine, chlorine and bromine,) and from which they are separated with much difficulty.

The distinction between metals and metalloids "depends upon their relation to heat and electrici-

ty. If a substance opposes no resistance to the diffusion of electricity through its body and over its surface, or, as philosophers express it, is a good conductor of heat and electricity, it is called a metal. If it presents characters the opposite of this, it is called non-metallic, or a metalloid." The salts detected in the residuum of vegetable substances submitted to the action of fire, are produced by a union of both these substances. Phosphorus, sulphur, iodine, bromine, chlorine and silicon, as also oxygen, hydrogen, nitrogen and carbon, are classified as non-metallic bodies, while the other elementary constituents, to wit,—sodium, potassium, calcium, manganese, iron and magnesium, belong to the class of metals.

When the non-metallic elements combine with oxygen, the result is the formation of an acid, and the same result ensues upon any of that class combining with hydrogen; and it is in this state that they are recognized in the soil, as well as in vegetables and their ashes.

Carbon, combined with oxygen, forms carbonic acid.

Sulphuric acid is a combination of sulphur and oxygen.

Phosphoric acid is produced by the chemical union of phosphorus and oxygen, and silicic and nitric acid are the results of the same union between silicon and nitrogen, and oxygen. Another feature presented by these acids is their propensity to form combinations with certain bases. These bases are found almost universally on the earth's surface, or mingled in its *crassus*, and invariably in the ashes of vegetables, and it is therefore by no means a matter of surprise that the two are seldom found in an uncombined state, in the soil, and invariably in a combined state in vegetables and their ashes, in the form of *salts*.

For the New England Farmer.

OVER A THOUSAND MEN

CRAWLING TWENTY-FIVE MILES ON THEIR HANDS AND KNEES—NOT IN INDIA, BUT IN NEW ENGLAND!

If we were to go into the labor market and offer farm operatives sixteen dollars a month for the working season, with the condition annexed, that in the course of the season they should crawl twenty-five miles on their hands and knees, how many of our free Northern laborers, suppose you, would set their hands and seal to any such arrangement? Yet there are thousands of able workmen who readily engage themselves to our thrifty market gardeners, with the condition very clearly implied in the contract, that each of them shall perform in the neighborhood of twenty-five miles of hand-and-knee crawling in the course of the season.

If any of our readers will take his pencil in hand, and figure out the problem of the distance to be gone over in the care of two and a half acres of onions, which is about the average quantity allowed per man, planted in rows fourteen inches apart, and requiring three hand-and-knee weedings in the course of the season, he will find, if my pencil mistakes not, that allowing two rows are taken each time, some twenty-six miles must be crawled over before the job is finally finished.

However, our worthy farmers, with knees well protected by stout woollen or leather pads, progress, tortoise-like, over the ground, and gradually wind up the season's work apparently without any serious inconvenience. An onion crop requires not only three such weedings, but also one or two hand weedings, towards the close of the season, and three hoeings in the course of it. With such data added to the extra cost of preparing, manuring and planting the ground, our farm friends who devote their acres principally to the grains, and sigh to hear of the heavy incomes derived from the culture of roots and bulbs nearer the city, will be better able to form some idea of the costs of such investments.

J. J. H. GREGORY.

Marblehead, Mass., Dec., 1861.

HOUSE PLANTS---WATER AND WATERING.

It is desirable that plants should be watered with rain-water; but as this cannot always be done, water from wells or pipes must, in such cases, be used, *but should never be used in a cold state*, as a quart of boiling water to a gallon of cold will in great measure rectify it, and save the cultivator the mortification of seeing the leaves of his plants turn yellow and drop off. So important do I consider this point, that I never give cold spring-water even to kitchen garden crops; and when in charge of a large place, had daily a copper going to supply hot water for all purposes of watering and syringes; and for syringing I consider it should be as warm as one can comfortably bear the hand in. To promote the growth of the plants in April, May and June, syringing should be done on the afternoon of bright days, just as the house is losing the full force of the sun's rays —say from three to five o'clock. The moisture will then be diffused into vapor, instead of hanging coldly about the plants, as it would do if given at a later period of the day; and to syringe in the morning may be attended with danger, for the sun striking upon the wet foliage might disfigure it. Syringing in a house will scarcely be required excepting during the period named, while the general stock is making its principal growth; even then plants in flower must be shunned, but the object sought by syringing is not so much to drench the plants as to create a soft growing atmosphere, which may be accomplished, if done before the sun is wholly off the house, by throwing the water into the air, and upon the roof and walls. Any individual plant or climber, on the other hand, that shows the presence of red spider, at whatever season, must be soundly soused; and this may be best done, in the case of pot plants, by laying them down upon a bass mat, and playing the syringe well at the under sides of the leaves; and this must be repeated often, until the spider is put to flight.

Watering at the root is an important matter; if plants are not supplied with as much as they require they do not attain to the perfection, either

in stature or flower, they are capable of, and are, in consequence, more subject to the attacks of insects. On the other hand, if supplied with more than they require, the soil turns sour, the leaves of the plant turn yellow, and it soon puts on anything but a pleasing appearance. Then, in order to shun these extremes, use observation, and give water whenever the soil seems to be approaching a state of dryness, and at no other time; this may happen twice a day, or twice a week, but give it then, and give it effectually, so that it passes out at the bottom of the pot. Plants that have grown so as to fill their pots full of roots, and plants in active growth, will be found to require much water in hot weather, but less in dull and damp weather; while others that have not so filled their pots, or that are not so vigorous, would be only ruined by a like application. The same rule holds good in the application of liquid manure, and in the using of pans to set the pots in; both of the latter do more harm than good, unless the pots are full of roots. The best liquid manure for pot plants is made by steeping horse and dry cow dung in a tub or tank, so constructed that the liquid can be drawn off clear, for turbid manure water renders the pots unsightly. The above is simple, and can scarcely do harm; but guano and other artificial manures must be used with extreme caution, say no more than half an ounce to a gallon of water.—*Garden Oracle, England.*

ACTION OF SALT AND SALTPETRE ON MEAT.

The following interesting account of the action of salt and saltpetre on meat will doubtless be new to many of our readers:

The manner in which salt operates in its preservative functions is obvious. Salt, by its strong affinity, in the first place, extracts the juices from the substance of meat in sufficient quantity to form a saturated solution with the water contained in the juice, and the meat then absorbs the saturated brine in the place of the juice extracted by the salt in the first place. Thus matter, incapable of putrefaction, takes the place of that portion of the meat which is most perishable. Such, however, is not the only office of salt as a means of preserving meat; it also acts by its astringency in contracting the fibres of the muscles, and so excludes the action of air on the interior of the substance of the meat. The last mentioned operation of salt as an antiseptic, is evinced by the diminution of the volume of meat to which it is applied.

The astringent action of saltpetre on meat is much greater than that of salt, and thereby renders the meat to which it is applied very hard; but in small quantities it considerably assists the antiseptic action of salt, and it also prevents the destruction of the florid or red color of the meat by the application of salt. From the foregoing statement of the mode of the operation of salt and saltpetre on meat, it will be perceived that the application of these matters deteriorates, in a considerable degree, the nutritive, and, to some extent, the wholesome qualities of meat; and, therefore, in their use, the quantity applied should be as small as possibly consistent with the perfect preservation of the meat.—*Exchange.*

FACTS AND FANCIES.

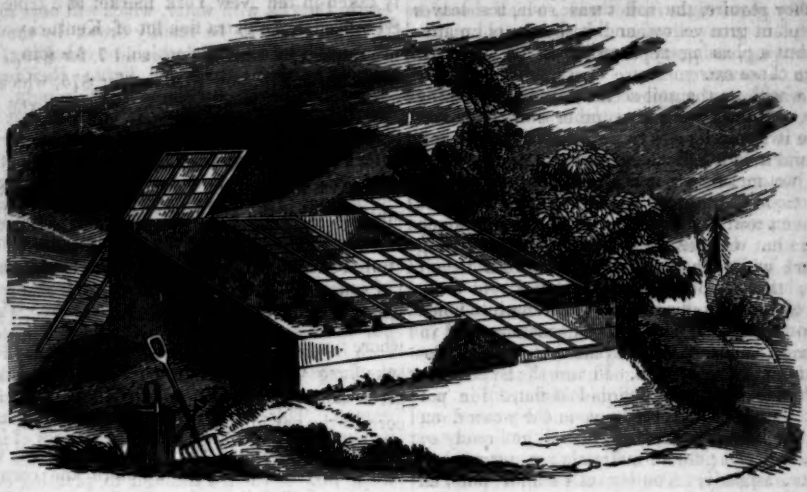
FAT SHEEP.—A drove of 200 sheep was recently taken in the New York market at a trifle over $4 a head. An extra fine lot of Kentucky sheep, brought in by Levi Brine, sold 7 for $49, 11 for $80, 10 for $75, and 10 more for $75, which was equal to 9c per lb. for the meat, beside the value of the fat and pelts.

CORN IN ILLINOIS.—The Illinois Central Railroad runs through the Egypt of the Prairie State, and has been the means of adding many millions of bushels, annually, to the corn and other breadstuff products of Illinois. By it the broad prairies have been broken up, and the station, the village, and the farm-house, now dot immense corn-fields where but a few years ago waved an unbroken sea of grass and wild flowers. This company has given notice that it will sell its lands and receive corn in the ear in payment, delivered on the car at any of the stations of the road, at eighteen cents for seventy-five pounds. To store the corn, the company is building *eleven miles of corn cribs* along the line of their road, twelve miles south of Chicago, with a capacity of 3,000,000 bushels!

EXTRAVAGANCE IN DRESS.—Dress may be elegant and not extravagant. It should be remembered that however the eye may be taken at first sight with a magnificent dress, it is *the wearer* that a man finally falls in love with. Greater economy in dress and a few other items of family expenses, would equal the extra taxes levied upon us by war.

THE OIL SPRINGS.—A gentleman named Denton, who has been investigating the matter, says that the oil found so abundantly in Canada, Ohio and Pennsylvania and many other localities, is not coal oil, but *coral* oil. He says,—"Stored away in cells, forming in the aggregate immense reefs, as it was collected from the impure waters of the early oceans by minute coral polyps, [an aquatic animal, that has no special organs of sense, and is capable of multiplying by buds and artificial sections as well as by ova.—*Ed. Far.*,] it has been driven by heat and pressure into reservoirs and crevices where man's ingenuity is discovering it day by day. I have in my possession many specimens of this fossil coral, with the oil plainly visible in the cells." This is gratifying intelligence, and seems to us rational. It has generally been supposed that this oil came from coal, forced out by a tremendous pressure, and found its way to caverns where it has been waiting—perhaps for thousands of years—for the scientific researches of man to bring it to the *light*.

PEACHES IN MINNESOTA.—The *Minnesota Farmer and Gardener* says: The peaches grown about St. Paul are all protected in the winter by *training the branches near the ground and covering them in the fall.*



For the New England Farmer.

USES OF A HOT-BED

BY E. W. BUSWELL.

Market gardeners and commercial florists understand well the *absolute necessity* of hot-beds in the economy of their operations, and so also the wealthy amateur, but to the amateur of small means —he who cannot well afford to expend a dollar except its speedy return be sure—the thought of a hot bed, and its management, is so formidable as to "taboo" the affair quite effectually. Now it is to my timid brother of small means that I wish to give a few hints that shall assist him materially in growing his pets.

To begin, I assume three things: first, that he considers flowers essential to his happiness and well being, and *the more the better*. Second, that his condition precludes the possibility of his giving much time to their culture; and thirdly, that he is willing *to repay the soil* for its contribution to his happiness.

Shrubs, herbaceous perennials, and the like, we will not consider now. They know no difference between the poor and the rich; so, also, the more hardy annuals do well under ordinary treatment; but all this don't satisfy us. We want a "show" of the finer and more delicate growing exotics, and *will have* them.

Suppose we try first to grow them in the ordinary mode of open culture, and let the lumbering hot-bed go. With great care we select the choicest seeds, and with full confidence in our ability to do the whole thing justice, we await the proper time for planting. It seems as though the ground never would be warm enough, spring is *so* backward, and it takes the cold rains *so* long to fill the ground and "go away;" but at last the bright sun has shone upon the earth for a *whole day* or more, in the seeds go, "for better, for worse," and we "lay back" with splendid visions of the future, to await their coming. Time is plenty wherein to speculate on probabilities, and lay our plans for dispensing beautiful bouquets among our less privileged friends; but how is this? why don't they come? I know I gave to each its proper depth according to its kind, and I have only here and there an indication of vegetable life, except weeds, which grow without aid; still we watch and pray, still they don't come, and we wait and wait, until hope is extinct; plant again—again the same result; call the seedsman a cheat, resolve to shun him in future, and fall back upon sunflower and marigold, seeds of which *we* saved, extend our faith another twelvemonth, and pocket our disappointment with all the grace at our command. So much for that system.

Now let us make a *hot-bed*, and see if we have cause to regret it. We design manuring the garden, so we buy stable manure in March, wherewithal to do it. No matter if it be coarse and cheap, we can improve the quality before autumn, many fold, and be richly rewarded in the process.

We begin by throwing it in a heap, so as to present as little surface as possible to the atmosphere, and while fermentation is beginning its work, we will get the frame ready. A good size for our use is 5×10 feet square, 10 inches high in front, 18 in the rear, with the ends shaped of course to match. Let these be cleated so as to prevent warping, and fasten together at the corners with hasps. Let in, flush with the edge, narrow strips

at proper distances for the sashes to slide on, with a narrower one in the middle for a guide. These will accommodate four sashes of proper proportions for glass eight inches wide, which should be inserted in grooves, rather than by the old method of puttying, as putty soon crumbles with such severe exposure.

We will now suppose the manure is ready to move, and the time almost the first of April, long before it would be safe to put seeds in the ground, and when but little else can be done outside. Now we measure a space 12×7 feet (to give a projection of a foot all round outside the frame,) on a spot well sheltered from cold winds and open to the sun. Commence by setting boards on edge secured by stakes, and fill in first with a layer of straw, leaves or other similar material, and then a layer of manure, beating it down with the fork, but not treading it hard. Thus continue until you have used sufficient litter to make it, with the manure, about two feet high. Put on the frame, cover the outside bank with boards laid flat, fill in with about four inches of tan, put on the sashes, and while the heat is getting up, we will get ready our seeds, &c., and prepare materials for potting.

Here, again, is an outlay of cash for pots, but we won't regard that when we see how useful we make them before summer is gone. We shall want some bits of charcoal for drainage, from which we can sift the dust to mix in the soil for potting. We last fall secured some excellent peat, laid up a little loam, and saved a remnant of the old hot-bed, (if we had one.) These, in equal parts, with a generous sprinkling of the coal dust, make a good soil for present purposes.

In about a week after the bed is made, the heat will be up, as we may find by thrusting a sharp stick into it, and we may now begin to sow in pots, seeds of such plants as are of slow growth, or will soonest bear turning out. A little practice will teach us when is the best time to start with the various kinds. Plunge the pots to the rim in the tan, and the bottom heat will do its "perfect work." We see that by having the seeds in our power, we can control heat and moisture at pleasure, and will scarcely make a failure, unless some careless person leaves the glass on too long during hot sunshine, while the "husbandman" *works*. Here, too, we will start such summer bulbs and tubers as require a season longer than ours, and of others, a few, to secure a longer season of bloom. Soon we begin to "prick out" the young plants, and "pot off" and "shift," so that our good time has come indeed. Who that has no hot-bed of his own, does not envy us our pleasure, and that too for weeks before he can hope to start on his own hook?

To watch carefully to prevent burning, to water as may be necessary, to give air to prevent damping off, and to close before nightfall, covering with mats, are amongst our cares, until now the ground is warm enough to begin to "turn out," so out they go. Ordinary transplanting requires much care even in cloudy, or rainy weather, which cannot always be had at will; but *we* can snap our fingers at the weather, for we disturb no little spongioles in the operation. If the sun is too hot for them, invert the pots over them, but remove them again before the dew falls. This is another use for the pot. A third use is in irrigation, which is done in this wise, and is, by the way, the only proper mode for the flower-garden. Set the pot right side up close by the plant, and press it firmly down so as to fill the hole at the bottom with earth, then fill with water, which will ooze so slowly through as to be readily drunk by the earth, thus avoiding a puddle, which, on subsiding, leaves a crust to shut out air and light. Refilling once or twice will overcome the severest drought. Wash the foliage with a syringe, if you will, but never *pour* water faster than a gentle shower gives it, if you would not injure your plants. We retain in the bed such plants as we wish to keep together in pots, or plant it with vines, or use it as we will until "pay day," when we take out and save the tan, and also a little of the rotted manure, which now resembles in appearance a mixture of the best of loam and peat. The sashes and frame were housed long since, and we "pay off," by giving to our shrubs, herbaceous perennials, bulbs, &c., each its share of the "fatness" to protect it through the long winter, and when raked down in the spring, and forked in, to nourish it in its future growth. This whole system is recommended for its simplicity, and the ease and lightness of its operations. After the bed is once made, the whole work may be carried through, to planting out, by the most delicate ladies, or young children, even, with a little direction from the more experienced, It also enables us to take the advantage of time, and avoid the great haste otherwise consequent upon the commencement of gardening operations, thus accomplishing more within the season, with more leisure wherein to enjoy the fruits of our labor.

Remarks.—Our correspondent is enthusiastic, and we relish it greatly. We like enthusiastic people. We could *almost* forgive a scamp for fleecing us, if he did it with a will, as though he found pleasure in it. But a see-saw, poke-and-go sort of a person, one who never sang,

"Git out of the way, ole Dan Tucker,"

reminds us of an excellent horse we have—excellent in every thing but one—he insists upon going to sleep in the harness, and tumbling down with us occasionally! But we only meant to say that the uses of a hot-bed, so enthusiastically described, are just as valuable in starting our tomatoes, radishes, cucumbers, peppers, egg plants, &c., as they are for flowers. The small hot-bed which is illustrated, has its sides constructed of masonry, and is more substantial and costly than is necessary for the use of a common farmer, or single family.

The Iron Rule.—Never borrow a paper, book, umbrella, horse, cart, plow, shovel, spade, pickax, chain, or anything else whatever, if you can possibly do without it, nor then either unless with consent of the owner.

The Silver Rule.—Not only use the article borrowed as carefully as if it were your own, but more so, for it is not your own,—nor retain it beyond the time agreed to, without the owner's verbal consent.

The Golden Rule.—As soon as you have done using the thing borrowed, return it with thanks, and be ready to return the favor.

For the New England Farmer.

COMPLAINTS OF HIGH PRICES.

Mr. Editor:—A mistaken notion prevails very extensively among the mechanics and laboring classes respecting the effect of high and low prices of provisions upon them, pecuniarily. It is a stereotype complaint with them that it costs so much to live, they can scarce maintain themselves and families: or, that prices of provision are so high it is impossible for them to get forehanded, &c., &c. All such assertions, or notions, are based upon the erroneous idea that if provisions were cheap their wages would still remain the same. This can never be in the nature of the case. The cost of production and the price of the product necessarily go hand in hand. They as necessarily find their level as water. I can well remember when the carpenter in the country worked from sun to sun, and even longer, for a day's work, and was content to receive his dollar for the same. I know of many who then could live as well as country communities usually did, and get forehanded in property. When I was a boy, farm laborers were paid from eight to eleven dollars a month, according to qualifications. In haying time, daily wages were from seventy-five cents to a dollar. This was the case for several years, as many now living can testify. Provisions, of course, were low, as a general thing: northern corn rarely a dollar a bushel, butter and cheese quite low most of the time—yet still, all farm products, as compared with price of labor, were higher than at present.

How, then, are we to account for the almost universal complaint of our mechanics and laborers of having a hard time to get on?

I think none will deny that most of them do have a hard time—but is it necessarily so? I think it is not, and will try to make it appear. We will look at the case of the mechanic. The evil commences with him at the very outset of his apprenticeship. As the hours for labor are now regulated, he has much time at his own disposal. How it is disposed of few need to be informed. That a majority of them fail to make a good use of it, few will gainsay. Formerly, the master, or employer, felt himself under obligation to see that his apprentice contracted no bad habits, formed no bad acquaintances, and conducted himself worthily on all occasions. Lamentably is this now neglected, to the ruin of many a promising youth. The boss don't care to have this trouble, and the weak, injudicious parent fails to require it of him, so that between them both the boy is left pretty much to his own course, unguided by wise counsel, unrestrained by judicious command. He associates with whom he will, goes where he will, and contracts such habits as he will, little dreaming of the bitter fruit which in the end such unrestrained license is sure to produce. He is almost sure to contract the use of tobacco in some form, and if he escapes the use of intoxicating drinks, it is a marvel.

If by any means he has money to use, it is usually quickly gone for some needless recreation, amusement or extravagance. He has no idea of its value and wise use. It is more than probable that by the time he arrives at maturity his cigars and other needless expenditures will amount to nearly or quite as much as many expend on their board. This may be an extreme case, and no doubt is of rare occurrence, but that it does occur, many can vouch. Let us suppose the outlay for cigars and other needless expenses to amount to only twenty dollars per annum, (which is doubtless less than the real amount generally worse than thrown away, by a majority of apprentices and journeymen from sixteen to thirty, or for a period of fourteen years,) with interest added annually, and see if it does not give us a sum that most of our mechanics would be proud to possess.

What I have said in reference to mechanics, applies in a greater or less degree to other occupations. All complain, but I think the fault is generally to be ascribed to the grumbler himself. Suppose these classes gave their spare time to useful study and reading, thus acquiring information that in future life may be drawn upon for profit and pleasure, would they not, of course, husband their earnings, and more economically manage their affairs? Would not such a use of leisure hours operate as the great balance wheel of all their actions, leading them on to thrift and respectability?

Allow me to say to all of you of this class who chance to read these thoughts, that finding fault with the prices of food and the dullness of the times, will do you no good; prices, for all this, will remain the same and the times unaltered. Seek for the remedy within yourselves. Stop every leak, cut off every useless and needless expenditure, appropriate every spare hour to some useful employment, and you will be surprised at the result. You will find more money in your purse, a happier heart in your bosom. The clouds that heretofore have enveloped you will quickly disperse, and cheerful sunshine will illumine your future; contentment and hope will be your constant guests; your households will rejoice with you, and peace will surround your hearthstone.

The prices of provisions and the compensation for labor are entirely beyond our control, and it is useless for us to attempt it. They are governed by circumstances and laws that cannot, in the nature of things, be abrogated. O. K.

Rochester, Dec., 1861.

For the New England Farmer.

HOME SYMPATHY.

A young lady, a farmer's daughter, was asked a few days ago, "how large a dairy has your father this winter?" Her answer was, "How should I know? I don't go to the barn once a month."

Beecher says that "no one can learn patience except by going out to battle in the hurly-burly world." Perhaps so; yet nowhere in the "hurly-burly world" are there so numberless occasions for practicing patience, as in the quietude of home. And among these home trials, not one is more keen than the want of sympathy in your life-work from those around you. Buttonless shirts, and ventilated stockings, and late dinners, are very good patience teachers. But what can irritate a man more than when he sits down to explain to his wife and girls his pet plan for a perfect garden or orchard, or the additions and improvements which he intends to make to the barn, to see them listen with a martyr-like air of meek endurance, or turn away to commend Mrs. Grundy's taste in dressing her children!

Farm-houses would not have the barren all-for-

use appearance which they now so often present if farmers received due in-door sympathy. Boys would not consider farming as coarse and undignified labor, and hasten off to the city, if sisters worked "heart and hand" with them, and would not speak with such evident pride of the brother who is in college, or clerk in some city store. And young ladies, your pretty white fingers would touch the piano keys just as gracefully, and crochet and embroider just as skilfully, were they in the habit of giving the cows a daily loving pat, or a handful of hay. And you would lose none of your refinement, were you so well acquainted at the barn, that the horse would greet you with a good-morning neigh, and the busy fowls flock about you as you enter; or if you were able to inform inquirers whether or not your father "cut the feed" for his cattle, or whether in the summer he "turned them out to pasture," or "soiled" them.

You enjoy sympathy; why not *give* then, as you wish to *receive?* HOWARD.

Dec. 18, 1861.

FROST IN THE WINDOW.

Books have been written of painted windows, and journeys long and expensive have been made to see them. And without a doubt they are both curious and more than curious; they are admirable. One such work of art standing through generations of men, and making countless hearts glad with its beauty, is a treasure for which any community may be grateful.

But are we so destitute of decorated windows as at first one might suppose? Last night the thermometer sank nearly to zero, and see what business Nature has on hand! Every pane of glass is etched and figured as never Moorish artist decorated Alhambra. Will you pass it unexamined simply because it cost you nothing—because it is, this morning, the property of so many in common—because it was wrought by nature, and not by man? Do not do so. Learn rather to enjoy it for its own elegance, and for God's sake, who gave to frosts such artist tendencies.

The children are wiser than their elders. They are already at the window, interpreting these mysterious pictures. One has discovered a silent, solitary lake, extremely beautiful, among stately, white cliffs. Another points out a forest of white fir trees and pines growing in rugged grandeur. There are in succession discovered mountains, valleys, cities of glorious structures, a little confused in their outline by distance. There are various beasts, too. Here a bear coming down to the water; birds in flocks, or sitting voiceless and solitary. There are rivers flowing through plains; and elephants, and buffaloes, and herds of cattle. There are dogs and serpents, trees and horses, ships and men. Besides all these phantom creatures, there are shadowy ornaments of every degree and beauty, simple or complicated, running through the whole scale, from a mere dash of the artist's tool to the most studied and elaborate compositions.

Neither does frost repeat itself. Every window has its separate design. Every pane of glass is individual and peculiar. You see only one appearance of anxiety in the artist, and that, lest time and room should fail for the expression of the endless imaginations which throng his fertile soil.

There is a generous disregard of all fictitious or natural distinctness of society in this beautiful working. The designs upon the poor-house windows are just as exquisite as any upon the rich man's mansion. The little child's bed-room window is just as carefully handled as the proudest window in any room of state. The church can boast of nothing better than the emblazonings on the window of the poor seamstress who lives just by. For a few hours everybody is rich. Every man owns pictures and galleries of pictures.

But then comes the iconoclast—the sun! Ah, remorseless eye! why will you gaze out all these exquisite figures and lines? Art thou jealous lest night shall make sweeter flowers in the winter than thou canst make in all the summer time? For shame, envious Father of Flowers! There is no end of thy abundance. Around the equator the summer never dies; flowers perfume the whole ecliptic. And spreading out thence, the summer shall travel northward, and for full eight months thou hast the temperate zones in thy portfolio. Will not all the flowers of the tropics and of eight-month zones suffice? Will not all the myriads that hide under leaves, that climb up for air to tree-tops that nestle in rock crevices, or sheet the open plains with wild effulgence, that ruffle the rocks and cover out of sight all rude and homely things—suffice thy heart, that thou must come and rob from our winter canvass all the fine things, the rootless trees, the flowers that blossom without growing, the wilderness of pale shrubberies that grow at night and die by day? Rapacious sun, thou shouldst set us a better example.

But the indefatigable frost repairs the desolation. New pictures supply the waste ones. New cathedrals, new forests, fringed and blossoming, new sceneries and new races of extinct animals. We are rich every morning, and poor every noon. One day with us measures the peace of two hundred years in kingdoms—a hundred years to build up, and a hundred years to decay and destroy; twelve hours to overspread the evanescent pane with glorious beauty, and twelve to extract and dissipate the pictures!

How is the frost-picturing like fancy painting! Thus we fill the vagrant hours with innumerable designs, and paint visions upon the visionless sphere of time, which, with every revolution, destroys our work, restoring it back to the realm of waste phantasies!

But is not this a type of finer things than arrant fictions? Is it not a mournful vision of many a virtuous youth, overlaid with every device of virtue which parental care could lay on, dissolved before the hot breath of love, blurred and quite rubbed out!

Or, shall we read a lesson for a too unpractical mind, full of airy theories and dainty plans of exquisite good, that lie upon the surface of the mind, fair indeed, till touched? The first attempt at realization is as an artist tries to tool these frosted sketches, the most exquisite touch of ripest skill would mar and destroy them!

Or, rather, shall we not reverently and rejoicingly behold in these morning pictures, wrought without color, and kissed upon the window by the cold lips of winter, another instance of that Divine beneficence of beauty which suffuses the heavens, clothes the earth, and royally decorates the months, and sends them forth through all

hours, all seasons, all latitudes, to fill the earth with joy, pure as the Great Heart from which it had its birth?—*The Independent.*

THE RIGHTS OF THE FARMER.

What gives our country strength in this day of her peril, and what holds in check the nations who desire to procure cotton from the South, is the abundance of our farm products, by which we supply not only ourselves at home and our armies in the field, but have a vast surplus which England and France need and must have. They can do better without our cotton than they can without our corn, and so we have some security that they will not at present interfere in our family discipline of the refractory states.

Manufactures are important, and to be cherished at all times, but there is a market where we can supply ourselves with clothing and arms, even, if unable to manufacture all we need, while there is no country in the world from which we could obtain bread enough to sustain our army for a single month.

The legislation of Massachusetts has been always partial to manufactures; and the rights of the farmer and the interests of agriculture have often been sacrificed or put aside at the demand of the factory companies, not because of any wrongful intention, but because the manufacturers are wealthy, and united in their movements, and the farmers, individually, are scattered, so that they have no concert of action.

FLOWAGE.

The best lands of the State have been converted into mill-ponds, under the Mill Act, or Flowage Act, and it is even now lawful for any mill-owner to raise his dam without notice, and overflow as much land as he pleases. The only remedy of the land-owner is by petitioning the courts for redress. This is a disgrace to the Commonwealth, and should be changed forthwith, so that no dam shall be raised until after the land-owners have had notice and the court have by a judgment authorized the flowage. We admit that private property should be taken when the public good requires it, but let it be done as in the case of land taken for highways after the land-owners have been fairly heard and paid. We rejoice to see that our patriotic Governor has, in his recent message, called attention to this subject, and trust the members of the Legislature will give heed to his words of wisdom, which we quote.

The subject of flowing our low lands and meadows under the operation of the "Mill Act," has also engaged the attention of the Board of Agriculture. Rights already acquired thereunder are not subject to disturbance by its modification or repeal, but in the belief that the act has long outlived its usefulness, I respectfully recommend its consideration to the Legislature.

The tendency of thrift, economy and sound policy is toward general and systematic drainage, not toward the drowning of the most valuable lands. Rude and poor farming is the usual lot of pioneers. It was true of those of New England. They gradually moved down from the more barren hill-tops to the meadows and richer lands, where capital and labor, wisely expended, are at first absolutely needed, but where the ultimate return is large and ample.

In this connection I desire also to call the attention of the Legislature to a measure of justice and public utility which will restore to cultivation many acres of the richest and most productive lands in the State. There are in nearly every section of the Commonwealth, ancient mill privileges under which the right exists, and has existed since the first settlement of the country, to flow back upon the lands adjacent to the streams which supply them. Many of these privileges are neglected, and have been unused for years, but still the dams remain, rendering all attempts to redeem for cultivation the lands above, of no avail. There should certainly be some limit to the period when exclusive rights, originally conferred upon individuals for the common good, and which, under the changed circumstances of the present time, serve only as instrumentalities of oppression, and to retard the development of enterprise in the cultivation of the soil, should again revert to those proprietors of lands by whom they were originally yielded. Whether provision should not be made by statute limitation as to the time when all such unused and neglected mill-privileges should become invalid, is worthy of your consideration.

We know how these wise suggestions of Gov. Andrew will be met. The farmers will be told that the mills are now making clothing for the army, and their water-power must not be disturbed. Our answer is, food is as important as clothing, and it can only grow on our own soil, while mills can run by steam as well as by water, and so we may increase our food and not diminish our manufactures.

THE SUDBURY MEADOWS.

The Governor calls attention to this subject, and we trust the rights of agriculture are not to be further sacrificed by any new schemes of the mill-owners on the Concord River.

By an Act of 1860, an act of strict though tardy justice, a board of commissioners were authorized to remove thirty-three inches of the dam at Billerica. This act has been declared by the Supreme Court to be constitutional. Under its operations, the commissioners removed the flash-boards from the dam. At the General Court in 1861, the mill-owners demanded a new examination, insisting that the dam formed no obstruction to the water. The meadow-owners opposed this as a useless expense and delay, but a law was passed to stay the operation of the act of 1860, one year, and a new board of scientific commissioners was appointed to report as to the extent of the flowage and the effect

of the dam. Their report is not yet published, but they have stated their conclusions to the counsel, on each side, and we know something of the result.

Their conclusions will be found to sustain the positions for which the land-owners have always contended, which may be briefly stated thus.

1. While the dam stands, the meadows can never be effectually improved.

2. By removing thirty-three inches of the dam, and reasonable improvements of the channel, the meadows may be made dry enough for cultivation.

We hear that the mill-owners are everywhere proclaiming that the commissioners have reported in their favor, and insisting, because the water did not all run out of the river, when the dam was opened, that removing the dam will do no good to the land-owners. We call the attention of candid readers to the following extract from the printed argument of Judge French, before the Joint Committee last year. It shows what the land-owners then claimed, and we have no fear that the report of the commissioners will conflict with his positions. It was admitted that the river was full of bars which had formed, in part, through the operation of the dam, as bars always form by deposits above a dam. It was admitted that weeds were growing all along, which must be cleared out, in order to allow free passage for the water. Nobody expected the water to run off so as to effectually relieve the meadows, without some labor on the part of the owners.

The dam prevents any improvements. Being higher than anything else in the river for twenty-one miles, if every bar was cut out, and the channel made into a canal, the water must remain higher than any of the bars.

The land-owners expect and desire to improve the channel, which is rapidly filling up with weeds and deposits of sand and mud. Formerly they could do this to some extent. Of late years the greater height of water has prevented, and unless the dam is reduced, their case will grow worse and worse. With the great increase of water and the obstructed channel, and this dam higher than any other object in the whole river, their condition is hopeless. *Reduce the dam thirty-three inches, the water will fall proportionably on all these bars, which may then be cut out, and the river may be brought and kept within its banks in the growing season.*

In the report, at pp. 207–8, "Mr. Chase asked if there was any practical difficulty in regard to the removal of the natural obstructions in the stream, bars, &c. Mr. Butler replied in the negative."

Mr. Francis, their expert, fully supports our view of this matter. He says:

"If the fall is now four feet in the twenty-two miles, taking out the bars might reduce it two feet, or even more. It might be dug down so that the water could be kept in between the banks, like a canal, except in times of extraordinary freshets,"—p. 256. He says again: "If the fordway were blasted out, the dam standing as now, it would make a little relief in certain stages of the river, but I think no substantial and general relief would follow. *I think removing the dam, the fordway and bars would produce a material effect*, but not the removal of the dam alone."

What the land-owners then asked, was that the act of 1860 should go into operation, and the dam be reduced thirty-three inches for one year. Then, if, by clearing out the channel, the water did not go off, the dam could be restored. If it did no good to the meadows to remove it, it would do them no harm to restore it, and nobody would object. But this would not satisfy the mill-owners, and against all protests by the land-owners, they procured their stay act, and a new commission, and after putting the Commonwealth to an expense, as we hear, of nearly twenty thousand dollars, they will probably renew their attempt to prevent this most beneficent act of 1860, by which a part of the dam was condemned as a public nuisance, from going into effect, and to continue this water-course and this controversy, with its enormous expenses, for generations yet to come.

GRAFTING THE GRAPE VINE.

My experience in grafting the vine for several years would furnish a chapter of failures. I think I grafted a few vines every season for about five years, and during the whole time succeeded in making but one grow and form a good vine; and this one only by disregarding the usual direction given by the professed experts. Instead of waiting for the formation of leaves, and discontinuance of the excessive flow of sap, I grafted this one early, before the flow commenced. Since that time I have grafted thousands of vines, with nearly as good success as attends any other kind of grafting. I have practiced saddle-grafting, whip grafting, and several fancy methods, but have found the common cleft grafting, carefully performed, the most reliable and successful. For large, strong stocks, I hardly think tying necessary, though a covering of clay or grafting wax is undoubtedly beneficial. For smaller stocks, I use only paper covered with grafting wax on one side. I could not recommend copper wire in any case. I have also grafted on various stocks, with very little difference in result using indiscriminately the wild frost grape of the woods, the Catawba, Isabella, Concord and some others. I do not say grafting the vine cannot be successfully performed after the leaves have formed; but it is a fact that up to the present time, notwithstanding many trials, I have never succeeded in doing it.—*Horticulturist.*

AMERICAN PLOWS.—A correspondent of the London *Mark-Lane Express* says: "The Americans have driven our plow-makers out of the Australian, Indian and Colonial markets, by their lighter and cheaper articles. Unless our makers bestir themselves here, by using steel instead of heavy castings, they will be likely to be "beaten on their own ground."

For the New England Farmer.

SAWDUST AS A FERTILIZER AND ABSORBENT.

In a previous article I promised to say something of my experience in using sawdust as a fertilizer and absorbent; and as the time of year I commenced drawing sawdust is approaching, and hoping that a plain statement of facts may induce others to commence with sleighing as I did, I will pen them for the benefit of the readers of the *Farmer*.

On the 1st of January, 1859, I commenced hauling sawdust and fine chips, made in the manufactory of clothes pins from white birch and twirl leaf poplar, to the farm at the Green Mountain Hermitage, Sunderland, Vt., and I had any amount of prejudice to combat with.

Many of the old farmers in our neighborhood told my father I would spoil his farm. Some even said they had tried to use sawdust as a fertilizer, and spoiled their land with it, &c.; but I was an unbeliever, and persisted in drawing it home. I had sustained loss in some manure by fire-fanging before I learned how to use it.

I averaged hauling half a cord per day for nine months, and it was a nine months' wonder what I was doing and going to do, with so much nonsense.

There were two horses, seven head of cattle and several swine on the farm, and I managed to use 100 cords in the nine months as bedding—in this way.

I put the sawdust on the floors about six inches thick, and as fast as it was saturated with urine, shoved the cattle and hogs' bedding into the manure vault, together with the manure, trampling it as hard as possible, and the horse bedding and manure under a shed. I soon found it must be turned or something else done with it to keep it from fire-fanging.

After trying various plans, I found the best was to run water on it—enough to keep it moist and cool—and let it remain in as solid a body as possible until I drew it out, and then put it in flat heaps, two or three cords in a heap, and a foot thick after it was well trod down. I put some light meadow mud, (black earth,) behind the cows, and the sawdust under them some of the time.

I put a pair of steers into a yard nights (14 ft. square) for two months, in the fall of 1859; throwing sawdust under them three times a week, one-third of a cord at a time. This lay until the spring of 1860, when my father took out 4 cords No. 1 manure. There was but little loss in bulk by decomposition, and he calculated it was one-fourth heavier than the four cords green sawdust put into the yard. There was a good deal of rain fell in the two months—fall rains.

The chips and sawdust that we could not work under our cattle for bedding, we piled up in the barn-yard and various places, in flat piles, as before stated. In September, 1861, I was at the hermitage, and found those heaps that were the innocent cause of so much gossip when put there in 1859, were getting to be valuable manure, and had settled but little. There is but little danger of getting on too much water. If it does not run out from under the heap, never fear.

The solid manure has all got to become a liquid or gas before the vegetable can be benefited by it in any way, and sawdust has a marvellous faculty of holding on to liquids and gases. I never smelt a disagreeable odor around our stables, while using the sawdust, only when it burned, (and physiognomists tell me I have a chemical nose,) and never saw any liquid leaching out from under our heaps on a clayed bottom, though we used water plentifully, often running on two barrels to a cord at a time. Used troughs with holes bored through the bottom to run the water on with, and run most of it from barn and shed eaves troughs.

I drew the sawdust a mile with one horse, and averaged an hour and a half to half a cord, drawing and distributing, trampling, watering, &c. We had from 80 to 100 cords of No. 2 manure made in 1859, aside from what is lying around that will be good in 1862—say 50 cords No. 2. This same stock in 1858 made about 15 cords No. 1 manure that was saved. The cattle were bedded in the common way, with straw, oats, &c., very sparingly, which I used in 1859. It was worth at least as much again as manure thrown out of a window to bleach and wash in the sun and rain. I also used what was made from the 1st of January to the 1st of April, 1859, from sawdust—some 30 cords—so had a good chance to experiment.

We put the manure side by side on various crops and various soils. Plowed it in; used it as a top-dressing on plowed land and grass land, and for that year there was no perceivable difference except on dry land, where the sawdust manure was best. I ought to say sawdust and manure, for the sawdust had not changed much, only where it had burned, and was not worth one-half as much, except as a top-dressing for grass land, as it was after it had lain over the summer and digested.

The next year, 1860, Old America was a little ahead, lasted a little the best, where plowed in, but only a little. On a cobble stone knoll of about one acre, where the grass was run out, and hardly worth the cutting in 1859, in the fall I drew about eight cords of sawdust manure and left it in heaps till the spring of 1860, when it was spread. I had spread half an inch thick, and so down to a mere sprinkling. It spoke for itself immediately, and the largest crowd spoke loudest. The grass on it was good in 1860, and after giving the thinnest sprinkled part another sprinkling after the grass was off, it was all very good in 1861. Cut one and a half tons No. 1 hay.

I put four cords of the same kind of manure on to one-half acre of land too stony to plow, and at the same time sowed ten bushels of oyster shell lime under it. On this piece the hay crop was doubled in 1860, and quadrupled in 1861. I have found sawdust manure operates as well on all crops as this—but except on grass land, would plow it under.

I manured thirty-two rods of worn-out sward land with three cords of sawdust manure in 1859. Plowed in one and a half cords first week in April, and one and a-half first week in May; broke it nine inches deep, and plowed it second time two inches. Sowed carrots 22d May, and when they came up sowed three bushels lime. First week in November we dug 160 bushels nice carrots; in 1860, 13 bushels shelled corn was raised on the bed without more manure, and in 1861 my father put on two cords sawdust manure and one bushel leached wood ashes, and took off 16 bushels shelled corn—New Hampshire twelve-rowed. Had a piece of

potatoes this year, on dry sandy land, manured with sawdust manure, and the more sawdust the more potatoes, as everything else. Don't know where the increase might end, but am convinced that such manure will raise most soils to a very high state of cultivation.

Had half an acre of Java wheat this year, the first that has been raised in this section. The soil had been fertilized with sawdust manure, receiving this year—after the wheat was up—a top-dressing of five bushels of wood ashes saturated with urine, and left four weeks to digest. It yielded 12 bushels, and had it not been for the tadpole, would have been 20.

I can hardly tell the greatest advantage arising from using sawdust and fine chips, leaves and other vegetable matter, as litter, for our stables and to compost—that is lying all about the country, and much of it contaminating air and water that would otherwise be pure and wholesome for man and beast to breathe and drink.

Wherever I have examined the roots of a vegetable grown where sawdust, chip or leaves and stable manure had been used, I found them embracing with their delicate fibres every atom of the vegetable matter within their reach, and drawing their natural sustenance from them; and there is nothing I have ever tried as an assistant fertilizer that holds so much liquid or retains it so long, where only the air and sun operate on it, as hard wood sawdust; and nothing that yields up this embryo vegetable so readily to the petitions of the rootlets.

There is much difference in sawdust, and I would make three qualities of sawdust or leaves as fertilizers, and therefore three qualities of muck that is formed from decayed forest vegetables.

1st quality.....hard wood, hickory, oak, maple, &c.
2d quality.....poplar, basswood, chestnut, &c.
3d quality.....spruce, hemlock, pine, &c.

Wayland, Mass. F. J. Kinney.

For the New England Farmer.

RANDOM NOTES.

Fine Colts—Effects of the Mild Autumn Weather upon Vegetation—Farmers and Science.

Mr. Editor:—The remarks of "S. D.," of Bolton, Vt., in the *Farmer* of Dec. 7th, I have just met with respecting some fine colts of his. One he speaks of as weighing 923 pounds, at one year and five months old, and the other at the same age, 773 pounds. The first he thinks is hard to be beat, which is undoubtedly true; but two colts of about the same age in this vicinity, (raised and owned by the writer's father,) that are considered by good judges to be very large and fine, I may perhaps be allowed to mention, as they also have been favored with but ordinary keeping. One is one year and five months old, (sired by the "Kennebunk Chief,") the other, one year and six months, and a short time since weighed 880 pounds each, and what is a little singular, both weighed in the same notch, not even half a pound of difference being perceived between them. The aggregate weight of "S. D.'s" colts is 1696 pounds; the weight of these, 1740 pounds. They are both horse colts, finely built, and "good looking."

The unusually warm weather of the past autumn seems to have had a peculiar influence upon vegetation, and in some instances apparently quite injurious. Besides the late blooming of violets in the gardens, and the untimely flowering of strawberries and many wild flowers, its forcing influence is quite as apparent, though doubtless less observed, upon the buds of the trees, especially of the forest shrubs and trees; and I fear will be too apparent, when spring returns, upon the buds and late growth of our fruit trees. During the first and second weeks of November, in my excursions in the woods and fields, I frequently met with buds swollen to bursting, and occasionally expanded into leaves, in consequence of the exceedingly and uniformly warm weather of October. On the shrub commonly known as the shadberry, (*Amelanchier Canadensis*,) it was not uncommon to find young, tender leaves an inch or an inch and a half in length, evidently having lost their reckoning, and mistaken the first of November for the first of May; the birches occasionally exhibited the same phenomenon. The buds of the common walnut, were generally larger than I ever saw them before at this season; and I observed several instances where they were opening into leaves; while the buds of oaks, maples, and various wild forest shrubs were very much swollen.

The scales that are produced during the autumn as an outside covering to the buds, for their protection during the varying temperatures of winter and spring, were often, and I think generally, sparingly developed this fall, and in cases where the young leaves were thus untimely developed they were scarcely formed at all. From the late continued activity of the sap, it would appear that even our fruit trees are less prepared for the blasts of winter than usual, and should the present winter prove a trying one, it is possible that the stimulating effects of our mild autumn upon the vegetable world may be sadly apparent in the fruit crop another season.

Even in December there have been several days in succession without frost. But now the winter seems to have commenced in earnest. The storm of rain and snow that occurred two days since has left the trees loaded heavily with ice, and a good foundation of snow and ice on the ground for sleighing. And this Christmas morning the mercury has settled down to the zero point; the bells jingle merrily as the sleighs go creaking by over the frozen snow, the forest pines look dark and gloomy, their heads bowed under the great weight of ice; the old nor'wester has assumed his wonted wintry sway; and we can but realize that winter has at last assumed his regal functions. The weight of ice now upon the trees is very great; the pliant birches are bowed to the ground, and generally the trees are bending beneath the burden.

I am glad to see your correspondents calling the attention of farmers, young and old, to the importance of some knowledge of the natural sciences. To the farmer, not only in a practical point of view, which is of itself a sufficient reward for any amount of attention that may be bestowed upon them, but as a source of enjoyment ever present, delightful and ennobling, they merit study and attention. Many shrink from the task as one of so much labor, and possibly so dry, when if they would but devote these long winter evenings to a thorough course of reading even, on one or more branches of science, as agricultural chemis-

try or botany, they would soon, I doubt not, almost invariably, become deeply interested in the subject, and pursue the study as a pastime, and surprise themselves with the advancement they would make, and the fund of knowledge they would find themselves in possession of at the end of a few months. Let none be discouraged at the sight of a few hard names; they soon become familiar and convenient terms. But in the *Farmer* of Dec. 14th, Mr. BASSETT has made further remarks unnecessary; he has stated the matter in its true light, and what he has said is in no point exaggerated. J. A. A.

Springfield, Dec. 25, 1861.

For the New England Farmer.

WAYSIDE NOTES.

Cutting down Trees—Rural Lanes—Birds—Climate—Weather-Grumblers—Change Essential to our Happiness.

In renewing my subscription to the *Farmer*, I am tempted to send you a few wayside notes on rural matters.

I am sorry to see our farmers cutting down the old apple trees around their houses, and mowing or grubbing up the bushes along the lines of their fences and lanes. Doubtless this is, in many instances, desirable, in the march of agricultural improvement; yet how often have I seen with regret the charm of a pleasant rustic place destroyed, while its productiveness was in no wise increased, by an indiscriminate sacrifice of every tree and shrub that did not bear dollars. On many of our New England farms are charming rural lanes, winding about in the most picturesque manner, and skirted on either side of the cart path, next to the wall or fence, with an irregular hedge-row of oaks, birches, pitch pines, savins, barberry bushes, wild cherry trees, &c. But too often the owner, in his blind zeal for improvement, cuts down these beautiful hedge rows, thereby destroying the rustic beauty of his farm. Thus the old-fashioned farmer banishes the birds from around his homestead.

Speaking of the birds, can you tell us, Mr. Editor, when we are to have the new Ornithology which we heard of so long ago as being in progress by Dr. Brewer? You may search our bookstores in vain for a copy of Wilson or Nuttall. They were long ago out of print. My thanks to your correspondent, J. A. A., for his interesting papers on the Birds of New England.

Every year I find myself better satisfied with our New England climate. I do not think we have any more winter than we need to make out an agreeable variety. Certainly, no weather in this world can be finer than our autumn, with all those quiet, hazy, golden days. The Indian summer loiters into December, and then we are ready for snow and the beautiful scenery of winter: the season of comparative leisure, of long evenings by the fireside and lectures and social gatherings; and before we are tired of sleighing, we awake some morning to hear the robin in the garden telling us spring is coming. I remember one winter when our ponds did not freeze to their usual thickness for the ice men to cut, and so that crop was a failure, though corn never failed in the summer. And yet, I am sorry to hear our people sometimes complain of the winters. To such I am accustomed to recommend a perusal of Dr. Kane. Though some, indeed, seem to make it a point to find something uncommon, unprecedented, and exceedingly uncomfortable in every change of the weather, as though they could have devised a much better arrangement. My busy neighbor complains of the short days, as if the long, delicious sleep of winter nights was of no account, and he would have it all *day-time*, if he could.

Nevertheless, I confess to an especial fondness for summer, though I cannot say I am, on the whole, any happier or any surer of happiness in summer than in winter. On the contrary, I am accustomed to regard the exuberance of spirits which most persons experience in the clear, sparkling days of winter, as a kind of compensation for the loss of summer's verdure. We are wont to dream sometimes of endless summer and ever smiling faces, forgetting that changes are essential to our happiness. We cannot clutch all of beauty or pleasure at a grasp, and therein lies the charm. When our cup of happiness is full it begins to run over. We scorn common things, yet when they grow rare we prize them. I have fancied that the dandelion was once the choicest flower, when first I have seen its bright face looking up from a soft green bed of the freshest spring grass. But I did not set out to write an essay.

Plymouth, 1862. J. W. S.

REMARKS.—We like the cheerful views of life and beauty, and the pleasant manner in which they are expressed. How can the writer gladden the hearts of thousands in any easier way, than by writing again? We cannot inform "J. W. S." when the new work on Ornithology will appear.

ROUGH NOTES ON MILKING.

The first process in the operation of milking, is to "fondle" with the cow—make her acquaintance, and thus give her to understand that the man, or "maid with the milking pail," approaches her with friendly intentions in order to relieve her of the usual amount of lacteal secretion. It will never do to approach the animal with combative feelings and intentions; should the milker swear, scold, or kick, and otherwise abuse the cow, she may probably prove as refractory as a mule, and may give the uncouth and unfeeling milker the benefit of her heels—a very pertinent reward, to which he, the uncouth milker, is justly entitled.

Before commencing to milk, a cow should be fed, or have some kind of fodder offered her, in view of diverting her attention from the otherwise painful operation of milking; by this means the milk is not "held up," as the saying is, but is yielded freely.

The milker should be in close contact with the cow's body, for in this position, if she attempts to kick him, he gets nothing more than a "push," whereas, if he sits off at a distance, the cow has an opportunity to inflict a severe blow whenever she feels disposed to do so.

Before commencing to milk a cow, the teats should be washed with water, warm or cold, according to the temperature of the atmosphere, the object of which is to remove filth which might otherwise fall into the milk-pail, to the disgust of persons who love pure milk, and hate uncleanliness.

Milkers of cows should understand the udder and teats are highly organized, and consequently very sensitive, and these facts should be taken into consideration by amateur milkers, especially when their first essay is made on a young animal after the advent of her first impregnation; at this period the hard tugging and squeezing which many "dumb brutes" have to submit to, in consequence of the application of hard-fisted and callous fingers, is a barbarity of the very worst kind, for it often converts a docile creature into a state of viciousness, from which condition she may not easily be weaned.—*Exchange.*

For the New England Farmer.

COE'S SUPERPHOSPHATE OF LIME.

After having read in the *Farmer* of Dec. 21 friend White's statements in relation to Coe's superphosphate of lime, I concluded I would give you, and the readers of the *Farmer*, a short account of my own experience with it. One year ago, this fall, I plowed up about one acre and a half of an old mowing field which was pretty much bound out, as the saying is. The next spring I carted on fifteen horse cart-loads of stable manure and spread it evenly over the whole piece. I then took my horse and plow and cross-cut it about four inches deep, in order to cover the manure, which I think is a much better way than it is to undertake to do it with a harrow. I then harrowed smoothly, and commenced on one side of the piece with my hoe, and opened rows 3½ feet apaft with the hills 3 feet apart, which I think is the right distance for corn. On the first eight rows I put about one pint of night soil and loam mixed to each hill; I then left one row without any fertilizer whatever; in the next row I put one small tablespoonful of Coe's superphosphate of lime in each hill; on the next row I put a handful of compost, made of equal parts of lime, leached ashes and plaster, and a very little salt, in each hill. I then commenced again with the phosphate, using a spoonful to each hill, until I used three bags, which nearly completed my piece, which was finished with unleached ashes in the hill.

Now for the result:—The corn where the night-soil and phosphate was put came up pretty well, also the compost row; the row without the fertilizer was two or three days longer in getting up, and after it got up, it looked as though it did not know which way to go; in fact, it did not go much any way, it looked as though it was planted in the dead furrow,—but that was not the case,—the land there was as good as anywhere on the piece. When the corn was fit to harvest I cut up the three rows first described, husked and weighed the corn from each row, with the following result: The row without any fertilizer had 21 pounds of corn, about one-half of which was unsound; the phosphate row had 84 pounds, about all of it sound; the compost row had 72 pounds, mostly sound.

I would here state that the worms injured my corn somewhat, though less where the night-soil was put than anywhere else, and very much worse in the row where there was nothing, than elsewhere. It has been claimed by some, I believe, that worms would not work where there was phosphate, but that is a mistake; for I found them right in among it. But notwithstanding the worms I had a good piece of corn. Where the night-soil was, the corn was as good, or better, than on any other part of the piece.

I am perfectly satisfied with my experimenting, and have come to the conclusion that any man who has got to buy fertilizers will do better to purchase Coe's superphosphate of lime than anything else.

I would here state, that on a part of the piece, I covered the phosphate up before dropping the corn, and on the other part I dropped the corn right on to the phosphate, but could see no difference in the result. Both came up well, and grew after it came up.

I think phosphate, for squashes, is excellent, as I raised about a cart-load right amongst my corn, the same as many people raise pumpkins. I planted squashes amongst my corn in order to get rid of the stinking black bug, which I did most effectually. I will close this article by joining with friend White in requesting that others who have tried Coe's superphosphate should give the results in the *Farmer*.

GEORGE MORRISON.

Franklin, N. H., Dec. 28, 1861.

REMARKS.—We are glad to get accounts of such thorough experiments as the above. It is through these that we shall be able to come to well settled conclusions as to the profitableness of using concentrated manures.

FACTS AND FANCIES.

HEALTHINESS OF ROOM PLANTS.—The editor of the *Horticulturist*, in an article on Room Plants, says, "It has been objected by some that it is unhealthy to keep plants in rooms; but their arguments lacks coherence and force, and we are compelled to record our experience against the position. We believe them, on the contrary, to be conducive to health, not only by their soothing and cheering influence on the mind, but as purifiers of the air, so that all may indulge their tastes without the least apprehension of injury to their health."

FATTENING SHEEP IN WINTER.—When animals are in the process of being fattened, several things should be observed beside that of giving them as much food as they will eat. There are certain conditions in which the food itself may be placed so as to make it more or less nutritious and valuable to the animal using it. In very cold weather its value would be enhanced if the drink and food were warmed, or better still, if it were cooked. If roots are fed, they are taken with less labor, and consequently, are better digested, than if the animal felt obliged to swallow them in large pieces. These things should be so arranged as to allow it to remain in a quiet condition, and so that it may stand or lie down at pleasure. All these, with regular feeding as to time and quantity, are of little less importance than the quality of the food itself. Mr. SILAS BUSH, of Skaneateles, N.

Y., in speaking of fattening sheep in winter, says, "I put them in a dry, warm place, and let them have plenty of air; give them one quart of oats each, morning and evening, with hay and pure water. I fed one in this way last winter, for three months, and it was admitted by competent judges to be as fat a sheep as they ever saw. I sold it to a butcher for $11,00." The reader will not fail to observe that the animal had a dry, warm place, and plenty of fresh air.

RENOVATING OLD WALL PAPER.—In these days of *The Great Rebellion*, when all patriotic persons feel like economizing their personal expenses in order that they may be more able to strengthen the government by sustaining the soldiers, the prudent housewife who has decided not to re-paper the sitting-room, as desirous, will find the old paper very much improved in appearance by simply rubbing it well with a flannel cloth dipped in corn meal.

AN UNFORTUNATE CULTIVATOR.—One little "garden patch" of ours, says a wag, has been very profitable, very, this season. The snails ate up the cucumbers, the chickens ate up the snails, the neighbors' cats ate up the chickens, and we are now in search of something that will eat the cats. Can any of our agricultural friends aid us?

EXTRA FEED TO COWS.—The old plan of feeding cows used to be, to see with *how little food* the animals could be carried through the winter! We have actually heard two farmers boasting of their skill in this particular; but they usually lost a creature or two each, every spring. They seemed to consider it quite fortunate if they lost *only* one or two animals. Among good farmers, the practice now is to make the cow eat as much as she will with good appetite. This we consider the most profitable mode of keeping neat stock. The rule will not apply to horses.

Some persons feed cows sparingly until within a week or two of their time of calving, and then give them more hay, and frequently add meal to it. This is a bad practice. The cow needed this generous feed in the earlier stages of parturition, which would have given both mother and calf greater growth and strength. The practice of feeding high, either just before or after the calf is dropt, is injurious—but especially afterwards, as it excites fever, the udder is more likely to be pressed with milk and swell, and the whole system is rather weakened than strengthened by the extra feeding.

For two weeks before calving the cow should be free in a roomy and dry place, with comfortable bedding,—and after calving should be fed sparingly for a day or two on sweet, nutritious food, but not in large quantity. During the same time the water given her should be slightly warm.

NEAT CATTLE HAVE NO UPPER FRONT TEETH.—The man who purchased a cow and drove her back two miles to the house of the man he bought her of, through a driving rain storm, because *she had no upper front teeth*, probably had not his own "eye teeth cut!"

GRAIN STORED ON THE LAKES.—Navigation closed, leaving about a million bushels of wheat in store in Milwaukie, and 2,480,000 bushels of wheat and corn together, at Chicago. By far the largest amount of grain ever in store on Lake Michigan at the beginning of winter.

For the New England Farmer.

RETROSPECTIVE NOTES.

CALENDAR FOR DECEMBER—CULTURE OF HEART AND MIND IN WINTER.—In the leading article of the December number of the *Farmer*, it is truly gratifying to *one* of its readers—as doubtless, also, he thinks, it must be to *many* of them—to find that the editor has given the precedence to the *fireside* over the *farm*, or, in other words, has made the suggestions which he has submitted for the consideration of his readers, relate rather to in-door employments and enjoyments—to the culture of the mind and the affections—than to out-door employments and operations, or to the care of stock, or any other department of farm-work. With pleasure and heartfelt satisfaction, we have listened to his familiar "talk" upon the sentiments which farmers should cherish in view of the fact that December is the month of *plenty*, when the store-house, the granary, the cellar and the larder are all well filled with the good things which a beneficent and [illegible]-taking Providence has caused the earth to bring forth in abundance for the sustenance and comfort both of man and beast. He who can take his fill, or satisfy the needs and cravings of his nature, out of the various and abundant supplies of a kind Providence, without gratefully recognizing the goodness of the bountiful provider of them all, is a being whom we must regard as very low in the scale of created intelligences, and whom higher beings must look down upon with pity, mingled with disapprobation. Truly, we are the children of many mercies, and well doth it become us all to partake of these mercies with a grateful and filial recognition of the Giver. Farmers, especially, should cherish such sentiments, as they receive the bountiful supplies of good things provided for the wants and comfort of the human family, at first hand, so to speak, from the ever-mindful Provider, or more directly and immediately from Him, than any other class or portion of the great human family.

Seeing that we are all so apt to forget our indebtedness and our obligations to the Giver of all the good things which we enjoy, and that we need line upon line and precept upon precept, to arouse us out of our forgetfulness and unthankfulness, no suggestions could be more appropriate for a Calendar for this month of plenty, when all our stores and granaries are full, than such as are adapted and intended to remind us of the sentiments which we should cherish as the children of so many mercies, and of the practical demonstrations which we

should make of our gratitude and sense of obligation. *Practical demonstrations*, we say, for surely we should be unworthy and self-condemned, if we did not practically demonstrate our desire to do the things that would please so good a Father —so bountiful a Benefactor.

With much satisfaction, also, we read the hints which the editor has given to his readers in relation to the opportunity which is presented to the farmer in December and the other winter months, for cultivating his mind, and storing it with useful knowledge. May his words fall here and there on good soil, and arouse an ambition to become, every year, wiser and better. By whomsoever this ambition is cherished, the golden moments, as they pass, will be improved, and the result of well-directed *study* and *striving* will be, that he shall become not only a nobler *man*, but also a better *farmer*, for neither muscle, power, nor any other power, is of so much use to one who has to manage so complicated and many-sided a business as farming, as the highest, strongest power of all—*Mind-Power*.

UNDERDRAINING, *page* 540.—Of late years there have been so many proofs of the value of underdraining published in this journal, as well as in other agricultural periodicals, as ought to be sufficient to stir up all cultivators of the soil—even old fogies, and those who follow established routine—to inform themselves as thoroughly as possible as to this method of improving their lands. No improvement will more certainly *pay*, when judiciously done.

A NEW CART BODY, *page* 548.—If there be among the subscribers to this journal, or among those who borrow it of their more intelligent neighbors, any one who is an old fogy or a blind routinist and follower of the fashions that have come down to us from our grandfathers, he will find in this article a hint which might convert him from the error of his ways, and a lesson as to the value of making use of his own faculties, which might make him more of a man, and less a blind, unthinking follower of the fashions of a past generation. There are many other things about a good many farms, as well as cart bodies, which might be improved by a little head-work.

BEAN MEAL FOR PIGS, *page* 554.—If the statement here made as to the superior value of beans for fattening hogs should induce any one to think, inquire, inform himself farther, and, finally, to make experiments in the feeding of beans and bean-meal to other animals as well as to pigs, he will very certainly be led to adopt the practice of feeding them far more extensively than is at present customary among farmers. If such a one should make researches among the agricultural periodicals for a few years back, he would find that some of the more enterprising of his farmer-brethren in different parts of the country have been experimenting with beans and bean-meal as food for various kinds of stock, and have found the results so beneficial as to encourage them to persevere. As one among the many testimonies which he might find of this kind, the following may be given as a specimen: R. H. Brown informs the editor of the *Genesee Farmer* that he has fed his cows early in the spring, with three pints each per day of Indian corn and white beans, ground together in equal parts, and that he never had his cows do so well on any other food. The cows gave a large quantity of milk, and the calves were the finest he ever raised. He says he shall sell no more beans, but feed them to his cows. To this we can only add, at present, the testimony of an English farmer who keeps a hundred cows, and who says in the *Gardener's Chronicle*, that after having tried various methods and various sorts of grain, he decidedly prefers bean-meal both for quantity and quality of milk and butter. Ground with oats or corn, they have also been fed to cattle, hogs, horses and poultry. We trust more trials will be made and reported. Try, one and all. MORE ANON.

For the New England Farmer.

AT TWILIGHT.

BY JOHN CALVIN GITCHELL.

The woods are dark, yet the low west
The hidden sun is lighting still,
And sharp against the sky, the hill
Stands, with its jagged rocky crest.

A fat sleek throng, down the green street
The herds come, driven to the yard,
Stopping at times, to crop the sward,
O'er which they pass with noisy feet.

The herd-boy loitering along,
Tosses his cap high in the air
To let the breeze play with his hair,
Humming the while, a merry song.

The farm-house door is open wide,
And just within, the farmer stands,
With ruddy face and sun-brown hands,
While his fair wife leans by his side.

By the vined-porch the grandsire sits,
Watching the children at their plays:
And thoughts of fargone, childhood's days,
Of shade and sheen, through his mind flits.

It is a scene, where the release
From sweating toil, makes it more fair:
And all the dim surrounding air
Seems hung about with clouds of peace.

Boscawen, N. H., 1861.

RAW HIDE.

How few persons know the value of raw-hide. It seems almost strange to see them sell all of their "deacon" skins for the small sum of thirty or forty cents. Take a strip of well-tanned raw-hide an inch wide, and a horse can hardly break it by pulling back—two of them he cannot break any way. Cut into narrow strips and shave the hair off with a sharp knife, to use for bag strings; the strings will outlast two sets of bags. Farmers know how perplexing it is to lend bags and have them returned minus strings. It will outlast hoop iron (common) in any shape, and is stronger. It is good to wrap around a broken thill—better than iron. Two sets of raw-hide halters will last a man's life-time—if he don't live too long. In some places the Spaniards use raw-hide log chains to work cattle with, cut into narrow strips and twisted together hawser fashion. It can be tanned so it will be soft and pliable like harness leather.

Every man cherishes in his heart some object, some shrine at which his adoration is paid unknown to his fellow-mortals.

WHEAT VERSUS CORN BREAD.

The urgent need of money to carry us through our political troubles, makes it a duty incumbent upon every loyal citizen to add as much as possible to the exports of the country, which furnish us with specie in return. Wheat is the one great staple demanded for foreign consumption. And every additional bushel that we can spare from our granaries will serve to alleviate the financial difficulties of the country. Mr. Judd, of the *Agriculturist*, with a view to encourage the substitution, as much as possible, of corn for wheat flour, offered, last month, premiums for the best made loaves of corn bread and cake delivered at his office. Specimen loaves were received from every loyal State but two, to the number of 250, and placed on exhibition last week. Hundreds of people manifested their interest in the subject by visiting the exhibition-room, and testing the various loaves contributed. A committee, consisting of competent persons, after two days' sitting, decided upon their relative merits. Their report will soon appear in the press of the city. We are permitted to publish, at this time, the essential points which it embraces. The first prize ($10) for the best loaf of bread, wholly made of corn meal, was awarded to Mrs. Jane O'Brien, of Carrick, Alleghany county, Pa. The following is the recipe accompanying it:

The loaf is made up of two quarts of corn meal, one pint of bread-sponge, water sufficient to wet the whole; and half a pint of flour, a table-spoonful of salt. After rising, knead it well the second time, and put into the oven, letting it remain an hour and a half.

The second prize of $5 was awarded to Mrs. Lott Cornelius, of Sullivan county, New York. The following is the recipe for making the loaf:

Mix two quarts of new corn meal with three pints of warm water; add one teaspoonful of salt, two teaspoonfuls sugar, one large table-spoonful of hop yeast; let it stand in a warm place five hours to rise; then add three-quarters of a pint or one and a half cupfuls of wheat flour and half a pint of warm water; let it rise again an hour and a half; have a pan well greased with sweet lard, into which pour it, and let it rise a few minutes; then bake it in a moderately hot oven one hour and twenty minutes. It is much better hot.

Mrs. R. Franklin, of Annapolis, Md., received the third premium of $2, for a loaf made in the following manner:

Mix two quarts of white corn meal, one table-spoonful of lard, one pint of hot water. Melt the lard in the water; stir it well, in order that it may get thoroughly heated. Add half a pint of cold water. When the mixture is cool enough, add two eggs well beaten, and two table-spoonfuls of home-made yeast. If for breakfast, make over night. Bake an hour in a moderate oven.

The first prize ($4) for the best loaf of cake of any kind, in which corn meal is one of the principal ingredients, was awarded to Mrs. W. H. Jenkins, of Williamsburgh, L. I. The following is the recipe for making it:

Combine three tea-cupfuls of corn meal, one tea-cupful of wheat flour, two table-spoonfuls of brown sugar, two table-spoonfuls of cream of tartar, one table-spoonful of salt. Mix well together while dry, adding one teaspoonful of saleratus or soda dissolved in warm water. Work the whole to a thin batter, and bake in a quick oven three-quarters of an hour.

The second prize for the best corn cake was awarded to Mrs. H. A. Judd, of Oneida county, New York. We are unable to give the method of making it, as some of the visitors not only devoured the loaf, but stole the recipe.

EXTRACTS AND REPLIES.

SPRING-SOWN GRASS SEED—SOILING COWS—BARN STOCK.

1. Will herdsgrass or clover bear hay enough to be profitable, if sowed early in the spring, or had I better sow oats and seed together in the old way? taking after crops in consideration, which will be most profitable?

2. Can I soil two cows with profit where fair pasturing can be procured at six dollars per head, Taking increase of manure by the soiling process into consideration? What will cure barn itch on cattle? SUBSCRIBER.

North Dunbarton, N. H., 1861.

REMARKS.—If herdsgrass and clover seed are sown about the first of April on ground in good condition, and the summer should prove a moist one, a ton of hay per acre is sometimes obtained. Perhaps the better way would be to sow oats or barley with the grass seed, and cut them for fodder. This course would not materially exhaust the soil, and the oats might in some measure protect the young grass, and give it an opportunity to escape drought, if it should ensue. The oats, when well made, will be nearly as valuable as the same weight of herdsgrass hay.

We should question whether soiling on a small scale, would be profitable, where tolerably good pasture could be had at six dollars per head,—but there are so many things to be taken into consideration, that we can scarcely offer on opinion of any value.

To cure the "barn itch," some persons use unguentum with success; others give the animal as much salt and soot as it will eat, and afterwards doses of sulphur.

USE OF RAW HIDE.

In a late number of the *Farmer* you recommend the use of raw hide. If you will tell us how to cure hide, you will confer a favor on

Enfield, Ct., Dec. 27, 1861. SUBSCRIBER.

REMARKS.—We gave the article as we found it, supposing that many farmers might find it convenient to use the raw hide profitably in some cases on the farm. Two or three inquiries have been made to the same point as the above. In the article we copied no intimation was given us as to how the skins were managed. Skins may be tanned by spreading powdered alum, or soft soap, on the flesh side, and rolling them together to remain eight or ten days, if the weather is cool.

They must then be drawn over the edge of a board —a board fence for instance—by two men, and rubbed and worked upon until they are pliable. But the raw hide, if we understand the matter, is never very soft. It may, perhaps, be made pliable by the process we have described.

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CULTURE OF HOPS.

Will you, or some of your subscribers, tell me what you think of hop raising, whether it will probably be good business for a few years, and what kind of soil is best adapted to their growth? How far apart should they be set, and how many poles to the hill? I have started a yard the past season, but am not quite satisfied as to the best method of cultivation. If you, or some of your subscribers, can give me any light on the matter, you will confer a favor, and at some future day I will give you the result of my first experience in the business. SAMUEL STANFORD.

Irasburg, Vt., Dec., 1861.

REMARKS.—There is no good reason for doubting that you may make a fair profit in the skillful cultivation of hops, provided they are properly prepared, put up, and offered in the markets at the right time.

The plants are usually placed on hills at the distance of five or six feet, and two or three poles are commonly placed on a hill. The first year poles six or eight feet long will answer, but twelve feet poles, or even longer, will be needed afterwards. The soil should be as dry as for Indian corn, should be deep and rich, and can hardly be stirred too much during the growing season.

The State of New York is the great hop garden of the Union—that State having produced in 1859, *nine million six hundred and fifty-four pounds!* The same year the English crop was cut off, which caused a brisk demand for American hops, and 49,000 bales were shipped from the port of New York alone. We export only when the English crop is cut off, which, together with the bad condition in which many of the American hops are put up, our cultivators not taking sufficient pains in that important particular, cause great fluctuations in prices.

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TO STOP VOMITING IN CATTLE.

Boil tansy and mint together; give one quart of this to the beast. If it does not stop in an hour, give the same quantity again, and repeat it till the vomiting ceases. I had a case of this kind which was cured by giving two quarts of this liquid.

Danby, Dec. 26, 1861. LYMAN R. FISK.

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BUNCH ON A COLT'S JAW.

I have a three years' old colt that has got a bunch on his under jaw, about as big as a hen's egg. It grows tight to the bone, like a wen that comes on cattle. Can you, or any of your subscribers, tell me of any remedy for it?

Richmond, Dec. 21, 1861. A SUBSCRIBER.

ESSEX TRANSACTIONS FOR 1861.

This finely printed book of 200 pages has just come to my hand. It contains the usual documents, together with about 50 pages of essays, by writers of taste and experience. Among the names appended to the Reports are many of the best experienced cultivators of the county. Notwithstanding the Society has ever been liberal in dispensing premiums, often paying out *one thousand dollars* a year, it has been so managed as to secure as a permanent fund on interest, all the money it has received from the State, during its forty years existence, which, together with the experimental farm, donated by the late Dr. Treadwell, of Salem, makes its present available means not less than $16,000. If there be any other agricultural Society in the State that has been more discreetly managed, I should like to be advised of it. It has pursued the even tenor of its way, directing "its eyelids right on, and its eyes right forward," avoiding all gambling movements and fancy improvements. So may it ever be.

December, 1861.

—

WARTS ON COLTS.

Can you, or any of your correspondents, inform me of a remedy for warts upon colts? I have a yearling colt, whose nostrils and under lips are fast getting covered with large, seedy warts. I have applied lamp oil, but without effect.

Wayland, Jan. 2, 1862. SUBSCRIBER.

REMARKS.—Mr. A. Briggs, of Deerfield, Mass., says that potash dissolved to a paste, laid upon the wart for half an hour, and then taken off and the part washed in vinegar, will cure a wart on man or beast.

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WILL DOVES PULL UP CORN?

I have kept doves for the last fifteen years, and have never had any corn pulled up by them, although my neighbors say they pull up theirs, and damage their grain crops considerably. If this is so, I must kill them, though I have thought they do as much good as hurt. H. T. GATES.

New Worcester, Jan., 1862.

REMARKS.—Doves are very destructive to the young peas, but we have never known them to pull up corn.

FRESH MAPLE MOLASSES.—A correspondent of *Field Notes* gives the following. Maple molasses well made and put up in cans right from the kettle, and hermetically sealed, as you would can and seal fruits, will keep as fresh as when first boiled from the sap, and this is decidedly the best plan for keeping, as when made in cakes, if exposed to the air, it will lose somewhat of the peculiarly delightful flavor for which it is so prized, and is often injured by insects. All this is obviated by canning while hot. To many families who do not make on a large scale, this need be but little expense, as the cans that have been emptied through the winter can be used until autumn fruits demand them again. Put up your best in this way. Where large quantities are made for market, the buyers must select and can for themselves.

For the New England Farmer.

THE ARMY WORM.

I discovered the army worm in the town of Wayland, Mass., October 12, 1861, on a small place owned and occupied by Hon. Edward Mellen. I was somewhat astonished to find them in such numbers at that late season, so watched their motions closely.

Upon making inquiry in the vicinity, I found but few persons who had noticed them, and they were not aware that the "army worm" was in their neighborhood. I had seen a kind of greenish-grey worm, striped with black, and it had eaten considerably the last of the season, but there were so many new things, I did not notice it particularly. I searched the adjoining fields, but could find no specimens except in Judge Mellen's case; then the question arose, how came so many on this particular piece of ground, and not one in the adjoining fields? I can answer this question in a satisfactory manner, to myself, at least.

The piece of land in question contained two acres, and was bounded on the north-east and south by rising land covered with fruit and forest trees, and on the west by a small pond of water, and a large tract of meadow. A half-acre of this land was "made land," flat, and composed of sand and muck, making a soil three feet deep, and but a little above the level of the pond. Part of this flat was cultivated, or had potatoes planted on it, but for want of care, witch grass was the cultivated crop, and the army worm was trying to set man an example by destroying it. The remainder was mowing, and the thick aftermath offered the worms food by day, and a warm covering by night, until they were compelled to seek their winter quarters. A person who has never studied entomology, will hardly believe insects capable of reasoning, as I shall endeavor to show these worms were.

I found them gathered around near the pond, in great numbers—but the weather held mild for several days, and they scattered in search of food—October 20th, I found some in a field fifty rods from the pond, or their camp ground. I discovered them feeding on the second crop of oats about 11½ A. M, and at 1½ P. M., they were all headed homeward; there were a few days colder weather, and they stopped in camp; but when there came a warm day, they sallied forth in companies in the warmest part of the day, and back to their camp ground before night. After the potatoes were dug, they crossed the dug over ground, and camped nearer the pond on grass ground, passing and re-passing in regular order, several companies abreast, and several deep. I examined them with a lantern, and found them lying in the same order, with a space about their length—1¾ inches—between the companies.

November 11th, I was setting Antwerp raspberries about 20 rods from the camp ground; at 11½ A. M., I left 10 stools with 40 stalks to a stool that I had not headed in; there was about one foot of top covered with green leaves, and when I returned at 12½ P. M., the leaves were gone, and the stalks were covered with army worms. On my appearance, they all dropped off from the stalks and started for home, all in the same direction and order, some forward and others backward, turning on the road. I had some wood ashes handy, and scattered some in front of the worms, and wet them with my sprinkler; these they marched over, so I scattered more and left them dry; those puzzled the worms, and they "left-faced" and started around. I let a few pass, and headed off the remainder with ashes, scattering them entirely around the regiment. When the forward company came to the ashes the second time, they delegated a reconnoitering party that went the rounds and fell into place, where they remained and froze to death that night. I tried to bring them to life, but could not. The ones I let pass, steered directly for the camp. The weather was winterish from that time, and they all disappeared. I searched for them several days, and finally found them packed away around the edge of the pond; they laid from eight to fourteen inches deep, and from the water back six feet. There was about four rods in length occupied by them, and they were about the same distance from the water.

Some began to wind up after three weeks, and others I think will remain dormant, as they are not fully grown, and didn't seem inclined to change their coats for fashion's sake. In the Agricultural Report of Ohio for 1860, second series, p. 350, is an able article by J. Kirkpatrick, who thinks the natural habitat of the worm is the wild swamp grasses; and I have no doubt, from what I have observed, that they always go to some such place as the ones above spoken of, to winter, and that ashes scattered around them in quantities, will keep them in check, and dry ashes will kill them, if properly applied. Dry slaked lime is as good as ashes.

D. J. KINNEY.

Wayland, Jan. 1, 1862.

AUTUMN OR WINTER MANURING THE BEST.—Nearly all the benefits of autumn manuring may be secured, where cattle and other animals are kept in stables or warm basements, by drawing out the manure during the comparatively leisure time of winter, and spreading it at once on the land. The winter rains, whenever they occur, and all the spring rains, will give it a thorough washing, and carry the liquid into the soil; but such places must be selected for this purpose as will not favor the accumulation of water into brooks or streams, and thus carry off the manure altogether. Grass lands are much the best for this treatment, by tending to retain the manure. Nothing is better for gardens that are to be enriched for spring crops, than autumn or winter application of manure; and newly planted trees, dwarf pears, strawberry beds, &c., receive a great deal of protection against cold by such coatings, which are to be turned in, in spring. —*Country Gentleman.*

OUR NEW OFFICE.—Our friends will please notice that we have removed the office of the *Farmer* to No. 100 *Washington Street, up stairs,* and directly *over A. Williams & Co.'s Bookstore.* The location is central, and cannot be far from most points where those who wish to call will have business to transact when they come to the city. We have a pleasant room, and shall be glad to have a few moments' chat with any of our friends who may be pleased to call.

STEAMING OR BOILING FOOD FOR STOCK.

Many experiments have been made in various parts of New England, to ascertain whether the food fed to stock could be steamed or boiled, so as to increase its value sufficiently to make the operation a profitable one. The experiments—so far as they have come to our knowledge—have been made under several disadvantages, the principal of which has been the want of a proper apparatus with which to do the work. Some have attempted it in the use of the common boiler or cauldron, others have made large troughs and turned boiling water upon the feed, and two persons, with whose experiments we are acquainted, have constructed large boxes and supplied them with steam by the use of somewhat expensive boilers. Under these circumstances, the results which have been attained do not agree, but have all tended to show that where the arrangements are judicious, a very decided advantage, or economy, may be found in cooking, or partially cooking, the food of our animals. One gentleman, who went through the winter with twelve cows and fed them on *hay tea*, has sent us the following account:

FRIEND BROWN:—In accordance with your request, I will give you a short sketch of my trial with the hay tea. I first procured a portable boiler, holding two barrels, which I placed in a shed adjoining the barn, the boiler being so situated that by means of troughs, I could pump directly into it. After filling the boiler nearly full of water, I pressed into it as much hay, unchopped, as it would conveniently hold. Upon bringing it up to the boiling point, I let it steep a few minutes, and then dipped it out into troughs to cool. It ought to steep longer, but could not on account of the smallness of the boiler. The hay I gave to the cows to eat, the tea for drink, not giving them any other drink, but as much dry hay as they would eat. I gave the tea as warm as they would drink it, using in it what would be equal to about three quarts of coarse shorts a day, to each cow; the grain was of different kinds during the winter. As I have told you before, I kept no strict account, so that I cannot enter into particulars, and can give only the general result. According to my own observation, and that of my neighbors, the balance was decidedly in favor of my cows, both as to their condition, and the quantity of milk they gave, although they consumed a much larger amount of hay and grain. In many winters' experience of raising milk on high feed of grain, roots and hay, taking the summer and winter cows together, I found the average to be about six quarts daily to each cow, and I have found upon inquiry among my neighbors, that is as high as theirs would average. My cows, fed with the hay tea, and the same proportion of summer and winter ones, averaged about ten quarts each day, showing so decidedly in favor of the tea, as to satisfy me that *it is the way to raise milk*. I think where the farmer has a good manure cellar, (and no good farmer will be long without one,) and material to put into it, he will find this manner of feeding a great help to the compost heap.

Another gentleman, who is entirely reliable, being a man of facts and figures, states that he kept

a number of large milch cows in excellent condition through the winter, on an average of nine cents per day. He also stated that with more economical arrangements—which his experience had suggested, but which he had not put into practice—he thought he could keep them well for even less than that sum.

In looking at the great variety of agricultural implements and machinery, recently, in the rooms of Messrs. PARKER, GANNETT & OSGOOD, on Blackstone Street, our attention was attracted to a cauldron, or steamer, for cooking food for stock, and in which we became considerably interested. While looking at it, the Hon. Josiah Quincy, of Quincy, came in, who stated that he had been using one of them for several months, and had ordered a second one of larger size. He is wintering some eighty cows, and in using this boiler in direct connection with them, we thought his opinion of their value would enable us to judge pretty correctly of its merits. It is as follows:

Boston, Nov. 28, 1861.

DEAR SIR:—"Prindle's Patent Agricultural Boiler and Steamer," has been used on my farm, daily, for at least six months, and has given entire satisfaction. As a cheap generator of steam, it appears to me to merit the high eulogiums that are contained in the printed certificates appended to the advertisements.

I am very truly,
JOSIAH QUINCY, JR.

Since the receipt of that letter, we have seen this steamer in operation, and it seemed to possess many points of value over any other cheap arrangement that we have seen. It had cooked a barrel of pumpkins into "squash," and was then steaming a lot of cut hay. Dr. EBEN. WIGHT, of Dedham, on whose farm we saw it in operation, states that it operates efficiently and cheaply; that it is easily managed, and requires little fuel, compared with the common stove cauldrons.

It seems to us that its merits must be full as prominent *in the house* of the farmer, as connected with the barn. Where there are cans to be washed, or milk-pans, or hot water wanted for feeding swine or slaughtering them, it must be exceedingly convenient. So in washing clothes, warming baths, or cooking vegetables in large quantities as they are obliged to in hotels. It is unlike the kettle, as it can be made to cook at *any desired point*, in any convenient wooden vessel at hand, which is steam tight, by the use of a flexible tube or pipe. It is impossible to burn the substance being cooked or heated. It dispenses with all cleaning of kettles for every separate job, unless the top is removed, and it is used as a common kettle for trying out lard, making soap, boiling clothes, or any of the usual purposes of a kettle.

We think those needing an article of this nature, will do well to call at the warehouse we have mentioned, and look at one for themselves. As Mr. Quincy states in his note, it is called "*Prindle's Patent Agricultural Boiler and Steamer*," and consists of two or three sizes.

WEALTH OF OLD ROMANS.

According to Cicero, the debts of A. Milo amounted to above $28,000,000, federal currency; Julius Cæsar, when setting out for Spain, is reported to have said to himself, he was $10,000,000 worse than nothing. When he first entered Rome, after crossing the Rubicon, he took from the public treasury $5,500,000, but at the end of the civil war put over $24,000,000 in it. He purchased the friendship of Curio with a bribe of over $2,500,000, and of the Consul L. Paulus, with half that sum.

Crœsus was worth in real estate over $8,000,000, and about as much in money, furniture and slaves. Seneca was worth over $20,000,000. Lentulus, the augur, over $16,000,000. Augustus raised by the testaments of his friends over $161,000,000. Tiberius left at his death nearly $100,000,000, which Caligula spent in less than one year; and Vespasian, at his succession, said that he required for the support of the State over $1,614,000,000. Nevertheless, though greatly enriched by his conquests, imperial Rome never came into the full inheritance of the chief wealth of the East, and the larger quantity of the precious metals must have remained excluded from the calculations of ancient historians.—*Life Illustrated.*

BOTS—PREVENTION BETTER THAN CURE.—In the winter of 1850, I was passing through Vermont, and stopped for the night at an old farmer's by the name of David Ruggles. The next morning one of my horses was suffering severely from an attack of the bots. A large dose of sage tea, made very strong, and sweetened with molasses, caused them to relax their hold, and I was soon enabled to pursue my journey. Before doing so my host informed me that he kept salt and ashes constantly before his horses, and said he thought it was a sure preventive.

Thinking it worthy of trial, upon my arrival home I rigged a box in each of my stalls, and put salt and ashes in equal proportion in them. Since then I have had a great many different horses, but have not had occasion to doctor for bots. Of course, I am not *certain* that the above prevented the bots, but I have no doubts on the subject.

It is harmless and cheap, and is worthy a trial by every one that keep horses.—*Country Gentleman.*

GRAFTING THE TOMATO ON THE POTATO.—"Horticola," in the *Horticulturist*, states that he succeeded, perfectly, in grafting a scion of the tomato upon the potato vine. He cut about one-third of the potato shoot off, just above a leaf, taking care not to injure the bud at its base. The scion, being shielded from the sun, was every day sprinkled with a little water, and it took readily. In the fall the tomato was loaded with ripe and unripe fruit, and had grown to a large size.

For the New England Farmer.

MARKET REPORTS.

MR. EDITOR:—The statement is often made that a certain newspaper article, or a certain market report, is worth the whole cost of a year's subscription. This is doubtless very true. I think, myself, that some articles from the pen of the editor or associate editor of the *Farmer*, are worth the price of the paper, and yet it does not always follow, by any means, that every one can afford to pay for it. Some farmers, who are deeply in debt, feel that they can hardly afford to expend any thing that does not promise a speedy return in money value.

If there is one department of an agricultural paper of more importance, in a pecuniary point of view, to the farmer, than any other, it is *reliable market reports*. The faithful record we get from week to week through the *Farmer*, of the sales at Brighton market, have elicited the commendation of several writers, and deservedly so, for they are honest reports, (without partiality to buyer or seller,) showing every farmer, at a glance, the true market value of the different kinds of stock. In my own judgment, Brighton market is better reported in the *Farmer*, than is the New York market by Solon Robinson, Esq., in the *Tribune*, inasmuch as it seems to me more in the farmer's interest, or, perhaps, I should rather say, in every one's interest, the reporter himself having no particular interest of his own, or his own locality, to gratify.

But my object in writing was, not to commend the reports of Brighton market alone, nor the various other market valuations of farming productions so fully and impartially given in the *Farmer*, which are all, I doubt not, appreciated, but to suggest what I conceive might be an improvement in your report on hay. Since the partial failure of the potato crop, farmers in this vicinity have very generally turned their attention more to the sale of hay, and we depend on the *Farmer* just as much to give us the Boston value of that article, as we do on the Brighton report to give us the price of a yoke of fat oxen; and what I wish to suggest is, whether it would not be an improvement, instead of quoting country hay so much, and Eastern pressed so much, to specify the price of the several qualities, as you do on beef, lumber, &c., by first quality, second quality, hay for bedding, &c. I find some of our farmers are at a loss to know whether their hay goes into Boston at the price of Eastern pressed, or country hay. I suppose that country hay has reference to loose hay drawn in from the vicinity of Boston; still I conclude our first quality hay, pressed and sent in by the cars, commands about the same price. By giving the price of the different qualities in Boston, farmers will readily perceive its home value, and govern themselves accordingly.

Those whose business it is to report the state of the markets, cannot be too fully aware of their responsible position. They act in an important sense as agents for the whole community. How desirable that those agents be so reliable as to give no just cause for the remark sometimes made, that "we can tell nothing by the papers."

Farmers should not be too sensitive to their own interest, nor strive to obtain more for an article than its true market value, but they are surrounded by speculators, and, as a body, go so seldom to the city, that they need all the advantage the market affords; and an agricultural paper, of all others, should be, (as I think the *Farmer* is,) in the farmer's interest. JOHN F. FRENCH.

North Hampton, N. H., Jan., 1862.

REMARKS.—We thank you for your suggestions, and your good opinion of the *Farmer*. The attention of the Reporter will be called to the matter.

For the New England Farmer.

THE SEASON AND CROPS.

FRIEND BROWN:—For a long time, as often as I have perused the pages of the *Farmer*, which I always do with pleasure and profit, I have been resolving and re-resolving that I would contribute my mite to your columns.

I have now screwed my resolution up to the writing point, and dipped my quill—no, we have no quills, now-a-days, except for tooth-picks. *Query*—What becomes of all the quills? Have the geese yielded to the pressure of the times, and stopped discounting quills, as the pigs have bristles, since pegs have been substituted therefor?

But, as I was saying, I am about to "write for the papers." Now for a theme. Your multitudinous and able correspondents have *raked* the ground all over, leaving less encouragement for gleaners than was provided in Old Testament times. But agricultural, like moral precepts, will bear repeating, and if I should advance what has been said, and better said, by others, my labor may not be lost.

The season just passed has been one of uncommon productiveness in this region. Most of the staple crops gave abundant yield. Corn was never better; hay very abundant, and got in in good condition; potatoes from fair to good, and little or no rot; oats about middling; wheat was injured by the lice—not more than half the yield of the previous year.

Query—Would it not be better to sow in the fall? Why more liable to be winter-killed than rye? Or why not sow a month or six weeks later in spring, and thus come it over the varmints? In Wolfboro', N. H., I was told by a farmer, in the winter of 1857, that he sowed wheat on the 16th of June, and harvested it on the 16th of October, the same yielding twenty-eight bushels per acre. Rye has been a leading crop with the farmers in this valley. Rye bread in summer, and rye and Indian in winter, have been regarded throughout the whole valley of the Connecticut as lawful tender, from time immemorial. But wheat is now crowding it out. Our miller told me a few days since that he grinds much more wheat than rye.

In fruit we have suffered in common with all New England. I wish some of your contributors would tell us why there was such a dearth of fruit last season. Apples, pears and grapes, next to none; cherries, peaches, plums, none. Was it the cold? A large orchard in my neighborhood produced more apples last season than in any one year for five years previous. My Isabella, Concord and Hartford prolific grapes did well, while the natives, of which I have ten varieties, all failed. Most of my quinces were killed down to the

ground, while one old shrub, which had for a long time been battling between life and death, bore a dozen fine quinces. Peaches are among the things that were. We shall raise no more until our seasons change. There is reason to fear that cherries will follow in their wake. We have had none for two seasons, and most of the trees give signs of approaching dissolution.

But enough of this. We have other and more formidable foes than the weevil, the curculio, the borer, and even Jack Frost himself. The vermin which have poisoned our political atmosphere are now boring into the roots of the tree of liberty, and stripping it of its foliage. Our farms should not be neglected, and need not be; but the principal energies of the whole loyal portion of our people should be concentrated upon this vilest and most formidable enemy of the body politic.

Amherst, Jan. 7, 1862.

THE PUZZLED WREN.

I was sitting one June morning at the open window of a pleasant country-house, when I observed a busy wren flying back and forth through the thick boughs of a large English cherry tree, bringing bits of wood and grass to the little round hole which she had made in the bottom of the tree, for a place, I suppose, to hide her nest in. After a while she came lugging a burden that looked heavy enough for two wrens. She had been to the wood-pile, and picked up a stick longer than she was, and I watched her as she flew up to the hole with it, and attempted to go in just as she had done with her other sticks and bits. I laughed to see how puzzled she was when her burden butted against the sides, and pushed her back from the entrance. She tried it again and again with the same result, fluttering up to the hole, knocking the stick against the sides, and then obliged to flutter back again. It was very rude in the ungainly twig, she seemed to think, and the little lady actually looked as if she felt insulted. I almost expected to see her give it up; but no. Fastening her feet firmly on the edge of the opening, she placed the stick perpendicularly, and tugged with all her might to thrust it through, but in vain; then she turned it and tried it horizontally, but it would not go in. At last she tried it endwise, and I could not help clapping my hands as it slid to the bottom of the nest, and the little bird hopped in after it, with a kind of provoked triumph in her manner, as if she said, "What a fool! Why didn't I know that before?"

MANUAL OF AGRICULTURE.—We learn that this work is already largely called for by the towns in Massachusetts, to be *placed in their schools.* One town has ordered *two hundred* copies, another one hundred, and many others twenty-five to fifty copies each. We learn, also, that where it has been introduced, the pupils, both boys and girls, are delighted with the study. We supposed that such would be the case. Our youth will readily comprehend the importance to them of such a study—a study that is always highly pleasing, while it instructs.

WINTER CARE OF STOCK.

In a climate so variable as that of New England, where the extremes of the temperature sometimes range from forty degrees above zero to twenty degrees below, within twenty-four consecutive hours, it becomes us to provide a pretty thorough shelter for the animals who depend upon us, as well as for ourselves. Stock *may* be kept out of doors all winter, or in cold and cheerless barns, and come out in the spring looking well,—but it must always be at the considerable cost of a large additional amount of nutritive food over what would have been required, if the stock had been warmly housed.

The body of an animal may be compared to a stove,—place it in an ordinarily tight room, and half a dozen pounds of fuel will heat its sides red hot; but when set out in the open air, where cold currents are constantly sweeping from its sides the heat imparted to them by the fuel, two or three times six pounds will scarcely heat it too hot for the hand to rest upon it. The food which the animal eats imparts heat to the system something as the fuel does to the stove. We find a few words to the point in the *Tribune.* "Farmers do not pay sufficient attention to the warmth of their stock, but suffer them to roam about in the open air, exposed to the inclement weather. The amount of exercise is another most important point to attend to. The more an animal moves about, the quicker it will breathe, and the more starch, gum, sugar, fat, and other respiratory elements it must have in its food; and if an additional quantity of these substances is not given to supply the increased demand, the fat and other parts of the body will be drawn upon, and the animal will become thinner; also, as before observed, every motion of the body produces a corresponding destruction of the muscles which produce that motion. It is, therefore, quite evident that the more the animal moves about, the more of the heat-producing and flesh-forming principle it must receive in its food. Hence, we see the propriety of keeping our cattle in sheds and yards, and not suffering those (particularly which we intend to fatten) to rove about, consuming more food, and wasting away more rapidly the various tissues of the body already formed, and making it more expensive and difficult to fatten them."

We are perfectly aware of the fact, that it is altogether easier to sit and talk about what is best to be done, than it is *to do the thing itself,* or to furnish the "ways and means" of doing it. Nevertheless, we believe a tolerably warm place can be provided for stock in seven cases out of ten among the farmers, and that without the aid of a carpenter! We were strongly reminded of this the other day, while visiting a very old barn, by observing how completely the arrangement of the hay, a

few common boards, old shingles and laths, and a good degree of skill, or rather tact, which is a grade higher than skill, had shut out the storm and wind, and provided a comfortable leanto for a fine stock of cattle, horses and colts. The old barn would creak and groan before the blast, but the cattle patiently listened to its uproar while quietly chewing the "cud of contentment," and grew fat and strong upon their fodder.

But the experiences of a "plain, practical farmer," will be regarded as of more value than any theories of ours, and as we have a plenty at hand, we give some of them below, which we find in a New Hampshire paper for 1852.

"The barn, or building, rather, in which my cattle for a number of years were sheltered, (if shelter it could be called,) was in a very dilapidated condition. Expecting from year to year to be able to replace it with a new one, I delayed many little repairs which I am since convinced it would have been true economy to make several years before. I knew the animals suffered much from the cold, and to compensate for their sufferings, I fed them well; but while pursuing the system that necessity compelled me to adopt, I could not but observe, on comparing notes with my neighbors, that my cattle consumed considerably more food than theirs, while at the same time their condition was not only no better, but scarcely as good. However, I then attributed this fact to any other but the right cause. Knowing that some animals eat more than others, without improving in an equal degree, I presumed that mine were of this lean kind, and thus dismissed the subject from my mind.

Feeling somewhat stronger in pocket two years since, I built a new barn. The shelter it afforded my cattle was, as you may suppose, better than the old one. The feed given my cattle during the first winter was the same in quality and quantity as that of the previous winter; but I was surprised to find in the spring there was a decided improvement in their condition over that of the preceding spring. Last winter I found that I could keep them on at least *one-fourth less food than ever before*, and as I am satisfied that they have not changed their natures, I cannot attribute this saving of food to any other cause than to the comfortable shelter provided for them in the new barn during cold weather.

I am aware that there are scientific principles upon which this change may be accounted for, but aspiring to no prouder distinction than that of a plain, practical farmer, I leave scientific explanations to those more competent than myself, being content to record the simple fact, that *I save one-fourth of my cattle's food, by providing them with comfortable shelter during the winter season.*"

FEEDING BONE-DUST TO COWS.—Your correspondent "Country," says his cow's toes grow too long. I have had sheep's toes do the same while stabled. Some time ago a young farmer living some 20 miles from me, said that he had, at different times, in his barn, cows whose claws would grow too long, and occasionally one claw would grow around the end of the other claw, and that it was cured by feeding *bone-dust*. He had fed as much as one tablespoonful each day to a cow in cut feed, with marked effect. He acknowledged it was full, strong feed. I generally feed one tablespoonful twice in a week to each cow, but do not know its effect. My reason for doing it is that my neighborhood has been pastured these 200 years, and little or no manure put on the ground, hence the soil is wanting in bone-making material.—*Country Gentleman.*

For the New England Farmer.

PLANTING CORN---RAISING ONIONS.

I believe that it is well for farmers to make experiments in agriculture, and after so doing publish the same in some agricultural paper, whether the results prove favorable or otherwise, so that others may know how to be governed in such matters. Agreeably to that belief, I last spring made the following experiments in raising corn and onions: After spreading about 32 loads of barn manure on grass land and turning it under, the land was then well levelled and harrowed smooth, after which it was rowed out 3½ feet apart, each way, and planted as follows:

One portion of the field was manured with night-soil compost, at the rate of one shovelful to four hills, another portion with Coe's superphosphate, at the rate of one handful to two hills, a third portion with wheat bran, at the rate of one handful to each hill. Before dropping the corn the bran was covered with soil by the foot; the three portions were treated alike till harvest time, then the three parts were harvested separately, and carefully weighed. In estimating the expense of the phosphate and the bran, I found that I had applied 18 per cent. more phosphate than of bran, by actual cost, and that the increase was but 6 per cent., by weight, above the bran, thus showing the bran gave the greatest gain for the first outlay. During all the forepart of the season, the bran portion was superior to the others, both in size and color. Thus I have experimented with bran for the two last years, with the same results.

NOW FOR THE TRIAL WITH ONIONS.

After trying for the last few years, with almost an entire failure, I had nearly concluded to give up in despair of raising this much-loved vegetable, but last spring I concluded to give them one more trial; consequently, after preparing my bed for parsnips, I sowed two rows lengthwise of my bed of six rods in length. I sow lengthwise, because I find it more expeditious working with the seed-sower, and the hand-cultivator running between the rows lessens the labor of raising garden vegetables much. After the onions were up, say about two inches, I sprinkled white pine sawdust along the rows so as to cover the ground completely over, wishing to prove whether sawdust was of any benefit. I left about four feet of one row without the dust; the consequence was, I had two good rows of onions, with the exception of the four feet undusted, which did not produce one single plant, proving satisfactorily, to my mind, the benefit of the dust.

Thus much, Mr. Editor, I have experimented, and send to you for publication, should you see fit to give it a place in your valuable paper.

Bedford, N. H., Dec., 1851. T. G. H.

THE HOP CROP OF MASSACHUSETTS.

The following extracts from the annual report of the State Inspector of Hops, Mr. Charles Carter, will be of much interest, not only to the hop growers of this State, but throughout New England.

The total amount of hops inspected during the four months ending Jan. 1, 1862, was 117,019 lbs., classified as follows:—First sort, 104,861 lbs.; second sort, 7,253 lbs.; refuse, 5,805 lbs. The report continues:

The hops grown this year are better adapted to the English market than a rich yellow hop, for the good reason, that the best English hops grown in the county of Kent, are a pale color, and our hops will compare favorably with them. The hops grown in the State of Maine, on the Androscoggin River, will come the nearest to the English hop, for the good reason, the climate is the most congenial to the culture of hops. The growers of hops in the State of Maine, within the last seven years, have changed their course from very coarse picking to what at this time may be termed fine or good picking; not that we expect our growers to fully compete with the English, but one thing I can say, from letters seen from England, in reply to hops sent forward from hops grown in the State of Maine, that these hops would compare favorably with the English hops, and would readily command one pound more per cwt. than ordinary American hops. Under those favorable auspices, we need not despair of growing hops, especially in the State of Maine.

One year since the duty on American hops sent to London, paid to that Government, was £2 5s; before the crop of 1860 came off, the duty was reduced to £1. , At the same time a further reduction was to take place on the 1st day of January, 1862, to 15s—which is the present duty on American hops. I would suggest to buyers to sell their hops the year grown in, as they depreciate one-third in price from new to old, which takes place at the end of the first year.

If the growers of hops will adopt my last suggestion, they may rest assured that the culture of hops will pay a remunerative price for the labor.

The price of hops the present season, since coming to market for inspection, has been from 15 to 16 cents per lb. I think, with an upward tendency at this time, with a small export demand in the absence of any hops of the growth of 1860, we may reasonably infer that all the hops of the growth of 1861 will be used, and out of the market before the new crop comes off. What old hops remain in our market are from two to five years old, consequently entirely neglected by brewers and consumers of hops.

THE EARTH A BURNING CAULDRON.—In one of his recent lectures at Manchester, England, on "Prophecy," Rev. Dr. Cumming said he had consulted Sir Roderick Murchison as to the truth of the statement that the interior of the earth was a burning cauldron. Sir Roderick replied that "no one but an ignoramus would dare to deny it." And when he, (Dr. Cumming,) quoted the words of Peter, in support of his statement, Sir Roderick replied, that "not only was Peter scientifically correct, but that Job gave him, (Sir Roderick,) the first idea of gold mines in Australia, and that Job was the best geologist he ever knew."

For the New England Farmer.

TOO MUCH SEED.

Well tested experimental facts are worth more than old customs and habits. Yet people love their habits so well that they will disregard their senses, and plant a bushel of seed potatoes where they ought not to plant a half-bushel. I wish to tell nothing now, only what *I have done*, and seen others do. I have seeded my potatoes largely and sparingly on the same ground under the same treatment, and always found the light seeding to yield the best and most marketable potatoes. I find the most profitable way is, to plant in drills, putting one piece in a place, and about 8 or 10 inches apart, in rows about 2½ feet apart, with one to three eyes in a piece. I saw last season 60 bushels of very handsome, marketable Jackson whites and Davis seedling potatoes, raised from 5 pecks of seeds planted in the above manner, upon a little less than one-fourth of an acre of ordinary upland, manured in the hill moderately. Land adjoining it, equally as good, and manured better, but planted in the old way in hills, and seeded largely, did not yield two-thirds as much, under as good treatment.

Near this patch of potatoes was a bed of turnip-beets which chose to take their own way in coming up, and not more than one seed in ten made its appearance to the sunlight. They had plenty of room to grow, and they occupied it to advantage. The yield was enormous for the space occupied. Some of them weighed 13 pounds. Their average weight was 6 pounds, and as good and fine-grained for eating as ever grew. This appeared to be the result of having plenty of room to grow. Another man near by planted the same kind of seed, which came up plentifully, and were thinned out some, but yet stood quite thick, were well cared for during the season, but made a light yield. Every thing was equal in both cases, except the one came up sparingly and yielded largely, the other thick and produced a light yield. There are many other cases I might name. I will refer to only one more. This system of light seeding holds good with small grain in good strong soil, as far as my knowledge goes.

While travelling in New Hampshire a few weeks ago, I fell in with a farmer in Canterbury, who had come to the conclusion that he had been seeding his land too much, especially, as it was very strong. In laying down nine acres to grass in the spring, he sowed oats, at the rate of a half-bushel to the acre. The result was five hundred bushels of oats from the nine acres. Also his wheat, when sown thin, filled better, and yielded more. This all proves something. We are just in our infancy in the agricultural kingdom.

I wish farmers would give us their experience through the *N. E. Farmer* more than they do. There are a great many young farmers, and not a few old ones, that are earnest seekers after knowledge. It may be interesting occasionally to hear something about kingfishers, crows, hawks and owls; but for my part, I had much rather hear

our friend Holbrook discourse upon practical farming; most any one of his articles is worth the price of the paper for one year. Also, H. F. French, upon the subject of draining, which I consider one of the great subjects of the day, and ought to be kept before the people. I should like to hear the experience of our farmers in regard to seeding.

A. PHILBROOK.

East Saugus, Mass., Dec., 1861.

REMARKS.—Friend Philbrook will accept thanks for his excellent article, and be pleased to remember that we have as many tastes to satisfy as we have readers, and that some of the most progressive and intelligent farmers are deeply enamored with Natural History. They desire that all the animals, birds and insects common to the farm, shall receive some attention, as well as the more important practical matters of the barn and fields. We know of no more pleasing and attractive means of instructing children, and of creating in them a love of rural life and rural occupations, than the plan we have long pursued of occasionally introducing interesting notices of the animated life on the farm.

LEGISLATIVE AGRICULTURAL SOCIETY.

[REPORTED FOR THE FARMER BY D. W. LOTHROP.]

The *First Legislative Agricultural Meeting* was held at the Representatives' Hall on Monday evening. The subject for discussion was *Manures*, and the Hon. JOSIAH QUINCY, Jr., was called to preside.

In assuming the chair, Mr. Quincy said he felt honored by the committee in being thus selected, and observed that the subject for discussion was, to the farmer, one of the most important. As Demosthenes said, "Action" was the first, the second and the third rule for good oratory; so for good farming, the first, the second and the third rule was, manure, *manure*, MANURE! And the important question was, how can we best obtain it? He alluded to the varied commercial or patent manures, and to Prof. Johnson's analysis of them, showing the worthlessness of most of them, and said the question should be, not how we could *buy* manure, but how we could *make* it. He alluded to the practice and good effect of turning in green crops, particularly in Maryland; but after all, the most important fertilizer was barn-yard manure, and this, as far as possible, should be made at home. Speaking of the manure of the cow, he said the test of the value of her products, both as regards milk and manure, was the quality of food given her. You can get nothing out of her which you do not put in. An Englishman will buy a bullock, keep him a time for his manure, and then sell him for what he gave, or less. Mr. Lawes, of England, had made experiments in feeding cattle on cotton seed meal, and found that while a given quantity of voidings from the food was worth $27,86, the same quantity produced from carrots and turnips was worth only 86 cents! We hardly know how to produce good manure. Guano, the speaker said, was far more valuable from the fact that birds have no liquid passages; yet a cow, on certain conditions, can make good guano, or something equivalent.

On his own farm, where he commenced farming four years ago, Mr. Quincy stated that he had raised his hay crop up from 150 to 400 tons. He keeps many cows, adopts the *soiling system*, makes his own manure, and finds nothing is lost. He alluded to Dr. Dana's experiments with the urine and dung of the cow, showing that the liquid voidings were worth more than the solid. Two-thirds of muck and one-third of cow manure was very valuable as a top-dressing. Farmers should save urine. In Holland, the urine of a cow is valued at $15 a year. The speaker said he saved it at his farm in reservoirs and carted it out on to his grass land. He alluded to Mr. Mechi, who forced his out by a steam engine, through pipes laid all over his land. But urine was best absorbed by muck and then spread on the land. Those who have no muck, can use anything that can be saturated. In keeping cows, not simply milk should be the object, but that of good quality, and rich manure. In conclusion, the speaker said the great secret of good farming was *high feeding*.

A gentleman, whose name was not given, inquired if urine should be reduced before being applied?

Mr. Quincy said no; give the muck all it will hold. He also inquired the views of farmers as to the time of applying manure, and as to top-dressing.

Mr. STEDMAN, of Chicopee, was the next speaker. He has a barn cellar, and mixes muck with his manure, which increases its value very much. He had put green muck on four acres of grass land, and in his case it produced two crops, and he thought it better than guano, as the latter was not lasting.

Mr. DAVIS, of Plymouth, had had some experience in regard to peat. Prof. Johnson spoke well of peat. But the speaker said it was objectionable in requiring great labor. Barn cellars are too much flooded, and he doubted whether they should be tight. In the bottom of old vaults the sand was perfectly pure; and why not have the bottoms of barn cellars porous, if there is no loss? Upland suffers very much in dry weather in his region, and peat was a good mulcher. He had applied 128 horse-cart loads to an old pasture, but the labor was objectionable. The soft paste at the bottom of the peat was very valuable.

Mr. QUINCY said cellars should be tight, and should receive only the urine of animals. It was

not important what time to apply manure. It does not lose by drying. The valuable parts of manure will yield only to the chemist or to plants. Make your own manure and spread it at any time.

Mr. HOWARD, of the *Boston Cultivator*, alluded to the dilution or *extension* of manure. Manure may be so concentrated as to be injurious. Hence urine should be diluted before being applied. Guano was usually reduced 50 per cent. He doubted whether Mr. Mechi's system was the best. Heavy soil needs straw and coarse manure, the liquid not being so beneficial as on lighter land. Peat, as a mulch, tends to lighten soil. Drs. Dana and Bartlett had discovered different kinds of muck, differing in value. Green muck was ruinous to rye, and the muck of mosses not valuable. Dr. Dana's theory was that muck should have alkalies.

Mr. ROBERTS, of Lakeville, inquired if it was necessary to have barn cellars perfectly dry? He thought not. By putting in muck it would absorb all ammoniacal waters.

A gentleman, whose name was not given, spoke of the distinction between peat and muck. Muck decomposes—peat does not. He takes sod and muck from the ditches of his low land and spreads it upon his upper grass land with great benefit.

Mr. QUINCY spoke of the difference between peat and muck. He had gone down twenty feet, and found cones of pine trees, probably thousands of years old. The upper part was peat, the lower muck—of which kind the Irish make cakes. Taking soil from one part of the farm and putting it on the other was an excellent practice. The great business of New England farmers should be in making manure and getting it out.

A gentleman, whose name was not given, asked about green manure. He had procured a great crop of rye from turning in clover. And by this process they get great crops of wheat in England —70 bushels to the acre being cited. He spoke highly of Mr. Mechi's watering with ammoniacal manure.

Mr. DEWITT, of Agawam, said a neighbor plowed in buckwheat to raise rye, but thought the wheat worth the most! He keeps his cows in his barn summer and winter, and this should be done where the land is good. He observed that he owned ten acres, and farmed it partly for profit and partly for the fun of it. Corn stalks were a good absorbent of urine; they keep the land open, and are good for potatoes. Muck will not pay the labor.

Mr. QUINCY alluded to sand as a bedding, or for sprinkling the stalls. Was used in England as an absorbent. Plowing in green crops was a hard thing to do, though useful, as they did not exhaust the soil till they began to form seed. He also spoke of anthracite coal ashes for potatoes, and cited an instance of where potatoes thus raised were very sound.

Mr. BAKER had no experience in sand, but had used sawdust for a bedding with good results. It pays well. He takes out muck in the winter and leaves it till the next fall, and then drops it through the floor into the cellar. He dug a cellar whose soil was very hard, yet it had become saturated with ammonia and phosphates. He applied manure in the fall. He steams his corn-stalks and feeds his cattle with them, instead of using them as bedding. Leached ashes were very valuable, and he had applied fifty bushels to the acre, at eight cents per bushel, to grass land, and cut three tons of hay to the acre. Farmers should not buy manure, but make it.

Mr. HOWES, of Marshfield, spoke of kelp, which was very abundant in his region. Why had it not been spoken of? It was valuable. Daniel Webster spread fish upon his land, but it burnt up the soil, and brought a prodigious lot of flies. For insects, such as squash bugs and the like, he had applied the putrid liquor of the fish, and found that while they disappeared from his cucumber vines, the latter grew enormously. Kelp and fish deserve more attention.

Mr. DAVIS spoke again of barn cellars. Barns should be put upon sandy land. Peat will carry off all water, and five inches of sand will clear any dirty water.

Mr. BAKER inquired how much it would purify.

Mr. DAVIS replied, any quantity. Green crops turned in are beneficial to light lands, and kelp should be composted. Fish on light soils are very hurtful, as they consume all the vegetation, but the remedy is composting. He spoke of different kinds of peat, and cited Mr. Colman, that salt peat was good for wheat.

Mr. HOOD, of Somerset, said sand was used in stables in Bristol county. He applies it to his stalls once a week. He had also used fish as a manure, and said that the flies they drew only annoyed people out of doors; they never entered the house. He keeps his cattle up, except three or four hours a day, and has faith in the good results of barn cellars.

The time for closing the meeting having passed, the chairman announced that the subject for discussion on next Monday evening would be *Agricultural Education*, and that His Excellency Gov. ANDREW was expected to preside. Adjourned.

IGNORANCE.—Never be ashamed of confessing your ignorance, for the wisest man upon earth is ignorant of many things, insomuch that what he knows is mere nothing in comparison with what he does not know. There cannot be a greater folly in the world than to suppose that we know every thing.

Happiness grows at our own fireside, and is not picked in the stranger's gardens.

PROVERBS FROM POOR RICHARD.

Take this remark from Richard—poor and lame; whate'er begins in anger, ends in shame.

An egg to-day is better than a hen to-morrow.

Law, like cobwebs, catches small flies; great ones break through before your eyes.

If pride leads the van, poverty brings up the rear.

He that would live at peace and at ease must not speak all he knows, nor judge all he sees.

He that can travel well afoot keeps a good horse.

The worst wheel of the cart makes the most noise.

He that falls in love with himself will have no rivals.

Against disease here the strongest fence is the defensive virtue, abstinence.

Tart words make no friends; a spoonful of honey will catch more flies than a gallon of vinegar.

Keep thy shop and thy shop will keep thee.

Beware of little expenses, a small leak will sink a great ship.

An ounce of wit that is bought is worth a pound that is taught.

A plowman on his legs is higher than a gentleman on his knees.

What maintains one vice will bring up two children.

When prosperity was well mounted, she let go the bridle and tumbled off the saddle.

A change of fortune hurts a wise man no more than a change of the moon.

He that has a trade has an office of profit and honor.

A false friend and a shadow attend only while the sun shines.

Plow deep while sluggards sleep, and you will have corn to sell and to keep.

If you would not be forgotten as soon as you are dead and rotten, write something worth reading.

Nothing dries sooner than a tear.

Scarlet, like silver and velvet, have put out the kitchen fire.

Never take a wife till thou hast a house to put her in.

Hunger never saw bad bread.

The poor have little—beggars, none—the rich, too much—enough, not one.

Old boys have their playthings as well as young ones. The difference is only in the price.

If a man could have his wishes, he would double his trouble.

A SINGULAR CASE.

Mr. MOODY H. ROBINSON, of Hancock, Vt., writes us that in May, 1860, he was in the town of Granville where he was invited by a Mr. Allbe to see a sick heifer, which he did, accompanied, also, by Mr. J. Hubbard. He found that the heifer could not drop her calf, although engaged in the effort to do so for a whole week. She swelled badly for a time, and then her udder and body gradually shrunk away, and she was turned off to pasture. In the spring of 1861, she was turned to pasture again and grew finely and fatted well. On the 28th of December Mr. Robinson was called to slaughter this heifer—she having been purchased and brought to Hancock by him—and in the presence of Mr. C. C. Hubbard, L. C. Abbott, E. Hubbard, and Mr. Allbe and his son, he says he took from her *the calf heretofore spoken of*, which weighed 87 pounds! It was found grown tight to the womb. The feet and legs were rotten to the knee joint, and the hair in some places was off, but no disagreeable odor was perceptible! The weight of the heifer when dressed was 573 pounds.

He also states that he had lately butchered a hog for Mr. AUGUSTUS FASSETT, of Hancock, whose weight was 777½ pounds.

If the first of these stories is not fact, it is a very *lively* fancy. We have no reason to doubt the statement. It does not appear to us to be a *lusus naturæ*, but one of those wonderful *provisions of nature* to preserve life, which sometimes occur.

SUGAR.

Sugar is not only a condiment; it is an important article of diet, and aid to digestion. Though the use of sugar as an article of food seems mainly to supply the carbon used in breathing, yet it undoubtedly contributes also to the production of fat, for during the severe labor of gathering the sugar crop in the West Indies, in spite of the great exertion and fatigue, it is said that every negro on the plantation, every animal, even the very dogs, will fatten.

The conversion of starch into grape sugar, also appears to be the first step in its digestion; and it is probable that the greater difficulty with which cellulose is converted into sugar, is the cause of its indigestibility and uselessness as an article of food. Sugar also plays an important part in many processes of the animal system, and appears to be necessary to the production of bile. It has been detected by Lehman and Bernard in the blood of man, and in that of the cat, dog, and ox. Sugar is also supposed to be necessary to the process of incubation, where, by its peculiar solvent action on the lime and phosphate of lime of the shell, it is thought to assist in the formation of the bones of the chick, and though this idea has not yet been demonstrated, it appears highly probable, from the general occurrence of sugar in the egg. As an instance of the marvellous processes going forward in the human frame, I may mention that in the terrible disease called diabetes, all the amylaceous food converted into sugar, instead of being assimilated by the system, as in health, passes away, the sufferer thus deriving no benefit from the food.

Sugar lies under a ban for injuring the teeth. What shall we say of this? The negroes employed on sugar plantations, who eat, perhaps, more sugar than any other class of people, have almost proverbially, fine, white, sound teeth, which they retain in old age. But, on the other hand, in England, persons employed in the sugar refineries, who are from their occupation obliged constantly to be tasting sugar, lose their teeth from decay after a few years. A strong solution of pure sugar appears to have no action on teeth after extraction, even after many months, and even when already decayed, the action upon them is scarcely percep-

tible. But sugar, in combination with a small amount of lime, or alkali, has the property of dissolving phosphate of lime, which is contained in large quantities by the bones and teeth; a circumstance which may explain in some measure the contradictory nature of the facts. Thus the inferior varieties of sugar and treacle, which always contain lime derived from the process of manufacture, and many kinds of confectionary into which lime enters as an ingredient, would be expected to have an injurious action on the teeth, especially if there should be a break anywhere in the outer coating of enamel. On the other hand, *fresh* honey and fruits, which contain a large per centage of sugar, but in which it is not likely to occur with lime in combination, are so far above suspicion, that some fruits—as strawberries, plums, &c., which contain much sugar, have even been recommended as aids to the securing of good teeth.—*Field Notes.*

EXTRACTS AND REPLIES.

THE CULTURE OF FLAX.

1. Is there any treatise on flax culture, the study of which would enable one not acquainted with the business of flax-raising to conduct it successfully?

2. Does New England afford a market for any considerable amount of flax? If so, where might it be sold, and at what price?

3. In what condition must it be sent to market? I suppose it would need to be dressed at home; if so, what would be the cost of machinery for preparing it for the market, and what the probable cost of dressing? By dressing, I mean separating the fibre from the stalk.

4. I wish, also, to learn the cost of a machine for grinding bones into meal, and the power required to propel such machinery.

ADIN BUGBEE.

Snow's Store, Vt., Jan., 1862.

REMARKS.—1. The *Farmer's and Planter's Encyclopedia*, and the *Farmer's Guide*, each contain directions for the cultivation of flax, and so has *Stephens' Book of the Farm.* It is not at all difficult to cultivate, and any land that will produce a good crop of Indian corn will bring a good yield of flax.

2. It must be sent to market dressed, or what is called "lint," and a gentleman who has been very largely engaged in raising flax, informs us that there is a steady demand in New England for *three hundred tons*, annually. Where large quantities are produced in the same neighborhood, it might be dressed by a new process which accomplishes the work with great rapidity. We are not able, however, to inform our correspondent at what cost. Four hundred pounds, per acre, of the lint is considered a good yield. We have no doubt, whatever, that the culture of flax may be made quite profitable to New England farmers, as nearly all that is now used is imported, and as the oil from its seed, and the cake, after the oil is extracted, are always in quick demand.

4. We have seen bones ground in a small, iron mill, which was propelled by steam, but did not inquire the amount of power required to carry it,—nor do we know the cost of such a mill.

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RICH LAND THAT PRODUCES NO CROPS.

I have a piece of land containing about one acre, that for a great many years has been manured highly, and bore very great crops of grass, until the meadow moles began to work in it, and cut the roots of the grass off, and almost killed it out. In the spring of 1860 I plowed it up, and found the soil to be a rich black loam. I planted it with potatoes, expecting a large crop, but did not get a quarter of a crop; last spring I sowed it with wheat, but only got three bushels. Where the soil is the richest, wheat did not grow at all, neither would the weeds grow. Can you tell me what I can put on it to secure a crop?

Apple trees are now upon two sides of the piece; would young trees set out in the piece be likely to flourish? L. P. R.

Millbury, Dec. 30, 1861.

REMARKS.—It is difficult to give an opinion as to what ought to be done with such a piece of land as is described above, from a written description of it. It needs to be seen, as the surroundings of a piece of land are often as much in fault as the land itself. It seems to us, however, that if 30 bushels of oyster shell lime were added to the acre, and the land planted to corn, or laid to grass, success would follow.

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THE NEW ENGLAND FARMER.

Having received this weekly publication ever since it was commenced by Fessenden, more than forty years gone by, and perused its pages every week, I think I can speak with some confidence, of the character of the paper. I look upon it as one of the most agreeable and reliable of guides in the labors of the farm. Its opinions indicate calm consideration and enlarged observation. It notices such topics as particularly concern its readers, and carefully avoids all fancy speculations and extravagant assumptions. Let any farmer take it, and carefully peruse and preserve it for occasional reference—he will find it of more value at the close of the year, than any cow in his stall. If he should not so find it, I will cheerfully pay his subscription, if he will send me his name.

Dec. 28, 1861. J. W. PROCTOR.

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WINTER IN VERMONT—CROPS—A FINE HOG.

Cold and dreary winter has again made its appearance, reminding us that the wheel of time is continually moving onward. The snow is now about half an inch in depth. During the month of November last, the thermometer averaged at 6 A. M., 24° above zero; 12, M., 36°, and at 6 P. M., 31° above. Thus the month averaged five degrees colder than the month of November, 1860. The hay crop here last summer was very good, and hay is selling from $4 to $6 per ton. The corn and barley crop were good, but oats and wheat are not so good as was supposed when they were harvested; however, they are full an average.

Mr. ERASTUS HOWARD, of this town, killed a

hog 18 months old, recently, which weighed, when dressed, 536 lbs. Who can beat this? Even the usually quiet mountains and valleys of Vermont are now wide awake by reason of the war, confidently believing that right will triumph over oppression. CYRUS.

East Hardwick, Vt., 1861.

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MATCHING STEERS' HORNS.

I noticed in a late *Farmer* an article in regard to matching steers. I would like to know if you, or any of your subscribers, can inform me how to match the horns of steers, in case one horn is inclined to turn down? I have often asked the question, and some say if they turn down, by scraping them on the upper side they will turn up, and some say on the under side; so I am left entirely without the true knowledge.

Marlboro', N. H., 1862. CLARK HILL.

REMARKS.—We have no knowledge in this matter, and hope those who have will reply.

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BRONZE TURKEYS.

R. Goodell, of Antrim, N. H., can obtain *full blood* bronze turkeys of the subscriber. Price $4 per pair. N. B. ROWE.

Laconia, N. H., Dec. 18, 1861.

HENS' NESTS.

Fowls of all kinds, when laying, like a secret place where their fellows cannot see them. They do not like to squat down in the hennery, surrounded by a greedy flock, that are ready to pounce into the nest as soon as an egg is laid, and devour it. Therefore, to gratify the hen's secretiveness, and at the same time save the eggs from being devoured by one of the flocks, my practice has been, for a number of years, to make their nests in nail kegs, not those that are very small, nor the largest ones, but of those that will hold about one hundred pounds of nails. In years past, I have been accustomed to fill a keg about half full of straw for a nest; but the past winter I have sawed all the kegs in two equal parts, knocking out the heads, and then nail a piece of cloth over the large end of each half keg, for a bottom. Any kind of old, or new cloth may be tacked on with small trimming tacks. During the winter, these half kegs are nailed up against the side of the hennery, about four feet from the floor. Hens that lay, will soon learn that when they get into these nests, their fellows cannot see them, as they are completely secluded in their cosy little nests; and if they themselves are disposed to eat eggs, they find that, if they attempt it while standing on the edge of the keg, they cannot reach them conveniently; and if they hop down into the nest, and attempt to pick the eggs, they will roll down against their feet, and they soon learn that they are not able to pick hard enough in such a position to break the shell. I find that a cloth bottom is superior to a wooden bottom, covered with a nest of straw. As the weather becomes warmer, so that the hens seek nests in the yard, we make nests in secluded nooks, or the kegs might be removed from the hennery, and nailed against the side of the fence, and a little roof made over them.—*Anonymous.*

For the New England Farmer.

"WASTE NOT, WANT NOT."

This was a Franklin motto. Apply it to the farm, and its bank deposits. Manure heaps are the sub-treasuries of the farming interest. Waste of manure is waste of wealth. Every miner who digs for gold, must dig in the dirt. But the farmer first deposits the gold in the ground, and afterwards digs it out with increase. The gold he plants, he gathers from the sources of consumption and decay, where carelessness may leave a loss.

Wisdom is wealth; time is money; money is money; and equally so, *manure* is *money*, to the farmer. Where shall we dig for riches? Where shall we go and gather up wealth? "Go to the ant, thou sluggard;" go to the squirrel, thou spendthrift; go to the manure-composter, thou foolish farmer, who hast nursed poverty, by working a hungry soil, and getting nothing, because you gave nothing as a basis of production.

Gather it at the stable. Mix well the solid droppings of the cow with twice its bulk of meadow muck; money in mud. Loam will serve a good purpose, if nothing better can be had. Pine leaves are almost priceless in the compost. And be very sure, if no great loss would be allowed, to put enough dry peat, old rotten straw, or other substance suited to the purpose, to take up all the liquid that she voids. Take like care, also, of the voidings of the ox and younger cattle. The noble horse, well fed, well used, furnishes much material to mix with muck; three times the measure of his solid excrements, with dry peat, sawdust or old straw, sprinkled with old brine, plaster, refuse salt, to save the urine—money from many things made into manure.

Gather a pile from the pig-pen. Piggy does not appropriate much for muscle, from the fat of his feeding, but pours out big bottles of ammoniacal liquor to magnify the manure heap. The gift is a great one, and never to be despised by the man of a flourishing farm. Pile the pine scrapings into his pen, with old leaves, loads of loam, and let him make his mark as a manufacturer; and he will do it in defiance of war or tariffs. Piggy's first work in the world is to provide for the corn crop, and when that comes in, in lusty loads, he will consent to be put into pork, for the benefit of princes, or paupers.

Gather gold from the hen-house. Pile the peat under the hen-roost; scatter ashes lightly over, or old lime, and saturate it with slops from the chamber, and repeat the same often, layer upon layer, mixing it all well, before each fresh addition of muck or peat. It will be cheaper than poudrette from Lodi, and as rich as a California quartz gold mine.

Gather gold from the sink drain. The suds and grease that go away there, contain gold; gather it up for the garden grounds; mix it with muck, or carry it to the currant bushes, or almost anywhere to feed the growing crops, and gold will grow out of it.

Save the suds from the wash-room. There are wonders of wealth in such mineral waters. They are good for sickly cabbages, melons, pears, squashes or tomatoes. They make all growing things to glisten in the glory of their growth.

Save the slops from chambers. Waste is as wicked there as anywhere. Man need not pride

himself above producing his portion of the food of plants; he was made of earthy matter, air and water, and wastes these daily from himself, in substance for the food of vegetation. "Waste not, want not."

Gather from the privy. There is no use, boys, in snuffing. This turning up the nose is of no more value in a young man, than it is in a blooming miss. Pride is peevish, and always out of place among the working world's nobility. Pile in the muck, or loam, with a mixture of plaster, much old rotten chip dirt, and drive away unpleasant odors by putting on new layers often; and carry away a great pile to the corn-field. You may bring it back in gold.

Gather all the ashes. They will answer for their application almost anywhere, in "words fitly spoken—like apples of gold, in pictures of silver."

"Waste not, want not." Gather manure from the mill, scrape up around the shop, take care of cotton waste, waste not old woolens, tax the tanner for his refuse truck, make the merchant a fair offer for old brines, call upon the collier for his charcoal dust, and tax all trades that the farmer feeds; buy when and what you cannot save, if it will bring back the gold; but, man of the muck heap, remember, "waste not, want not."

Lee, N. H. COMINGS.

For the New England Farmer.

REMOVING LEAVES FROM THE FOREST.

MR. EDITOR:—Some writers recommend to remove the leaves from the forest, for the purpose of bedding animals, mulching trees, protecting garden plants, &c.

Undoubtedly they are profitable for all these purposes, but the question naturally arises, "What effect would be produced upon the soil of the forest should the process of removing the leaves be carried to any considerable extent? Would it not be impoverished, and the trees retarded in their growth, just in proportion to the amount of leaves removed?

I have upon my farm a slight swell of land, extending nearly from north to south, upon which grew quite a grove of oaks and walnuts; but after they had attained about one-half their natural size they remained stationary, as it were, for some years, or at least made no perceptible growth; and why? It seems to me it was simply for the want of food; the leaves in the autumn being blown by the western winds into the valley upon the eastern side of the hill, instead of remaining where they fell, to protect and enrich the roots of the trees which produced them.

In conversation with an intelligent farmer of Lunenburg, he said he had observed the same result respecting the trees upon several of the hills of that somewhat hilly town.

It may be very well to secure and save the leaves from shade trees by the roadside, especially in places exposed to the wind, but to deprive the forest of the very food which nature designed for it, for the purpose of feeding other portions of the farm, it seems to me, so far as profit is concerned, is very much like taking money from one pocket and putting it into another.

Leominster, Jan., 1862. A. C. W.

For the New England Farmer.

HOW TO SELL FRESH PORK.

Whether to barrel, or dispose of in carcass, is often a perplexing question to those farmers who are fortunate enough to raise pork to sell. And here, like too many other problems in farming, we are generally guilty of jumping at a conclusion, without any positive knowledge, and using the Yankee prerogative of *guessing* which is the better way.

In arriving at a conclusion, reference must be had to price, markets, location, &c.,—although the price of pork in the carcass, usually, for the time being, corresponds very nearly to barrel pork.

In order to aid somewhat in throwing light upon this matter, the writer instituted some carefully made experiments the present season, as to the per centage of side pork, hams, lard, head, &c., in the carcass to which, (such as they be,) the readers of the *Farmer* are welcome, and which may aid some in determining the question referred to at the commencement.

FIRST EXPERIMENT—Weight of hog, dressed, 296 pounds.

Weight of side part was	166 lbs.
" " hams	55 "
" " lard	28 "
" " head	14 "
" " bony pieces, feet, shoulders	33 "
	296 lbs.

SECOND EXPERIMENT—Weight of hog, 238 pounds.

Weight of side pork	126 lbs.
" " hams	49 "
" " lard	20 "
" " bony pieces, shoulders, head, &c.	43 "
	238 lbs.

THIRD EXPERIMENT—Weight of carcass, 258 pounds.

Weight of side pork	135 lbs.
" " hams	55 "
" " lard	22 "
" " head, shoulders, bony pieces, &c.	46 "
	258 lbs.

It will be seen from the above that, in each of the three trials, the amount of side pork was about 55 per cent., of hams 20 per cent., of lard from 8 to 10 per cent., and showing an aggregate of 82 to 85 per cent. of sides, hams and lard, (all about of equal value,) in each animal. The hogs were, a part of them, pure Berkshires, and a part were a cross of Berkshires and Suffolks; number 2 being one of the Suffolks cross. I might also state that the hams were cut as large as practicable, consequently diminishing correspondingly the amount of sides—and the shoulders taken out as small as possible, being governed by the market in so doing. I should judge that in the ordinary way of cutting, 5 per cent. might safely be added to the side, and the same abstracted from the hams. But this is of slight consequence, as the price is usually very nearly equal.

Let us look again at this, and see how it figures. I could have sold my pork for 6 cents, (I barrelled it.)

Take No. 3, weight 258 lbs. at 6 cents	$15,48
Gave 190 lbs. sides and hams, worth say 8 cents.	$15,20
Lard, 22 lbs., at 8 cents	1,76
Heads, &c., 46 lbs., at 3 cents	1,38
	$18,34
Less 1 barrel, and 1 bushel salt	1,50
	$16,84

So that, even at this calculation, I should save something over a dollar by packing. But if I could sell my pork without the cask, and weigh it

from the barrels, I should save the price of the barrels, and possibly gain something in the weight of the pork. And again, the price of the sides and hams are, it will be seen, put low in proportion to the price in the carcass.

Thus from these figures each may be assisted somewhat in coming to a conclusion as to which will be the most profitable course for him to pursue; depending wholly, of course, upon location, markets, and the like, the object being merely to ascertain with positiveness the proportionate amount of each kind of meat in the carcass.

Wm. J. Pettee.

Salisbury, Conn., Jan. 8, 1862.

PATENT OFFICE REPORTS FOR 1860.

Through the polite attention of the Hon. Charles Sumner, we have received the *Patent Office Reports* for the year 1860,—comprised in three quite well printed volumes, two of which are devoted to *Mechanics*, and the third to *Agricultural* subjects. The second volume is entirely made up of illustrations of the articles patented, and contains *four thousand three hundred and sixty-two* engravings, each in a very fine style of the art. About *nine hundred* of these illustrations *relate directly to agriculture*, the most numerous of which are *harvesters, harrows, corn-planters, plows* and *cultivators*,—there being no less than nipety-seven of the latter.

The third volume is entirely agricultural, and its pages embrace many important subjects. The preliminary remarks give a brief review of the provisions made by several countries of Europe for the promotion of agriculture, from which it appears that a most lively interest is taken by the leading governments there, and that the art is greatly facilitated by the various aids thus afforded it.

In the course of these remarks it is stated that thirty-two thousand healthy *Tea* Plants have been disseminated among gentlemen who had expressed a desire to experiment with them, and that eight thousand more will be distributed this winter. Most of these plants were sent to persons south of Virginia and Kentucky. The Superintendent adds—"It is confidently hoped that by substituting machinery and steam power for the tedious and laborious Chinese mode of preparation exclusively by hand, *tea* may be extensively manufactured here, and even become an article of export."

In speaking of our animals, the Superintendent quotes a portion of a communication from Col. Daniel Ruggles, U. S. A., in reply to a resolution of inquiry respecting the buffalo, submitted to Congress, as follows:

"Perhaps no animal with which we are acquainted possesses such remarkable properties or qualities. His migratory habits and fitness for great extremes of heat and cold are the results of 'natural selection and the struggle for existence' for untold centuries, by which he has arrived at a vigor of constitution, fleetness and muscular strength, rarely, if at all, met with in the ox tribe. These are qualities of great value, which cannot be disregarded, and particularly when we consider the direct and indirect advantages that judicious crossings of domestic animals have bestowed upon civilization to an extent not to be calculated.

"A full grown, male buffalo will weigh from 1200 to 2000 pounds, and even more. In winter, his whole body is covered with long, shaggy hair, mixed with much wool: on the forehead this hair is a foot long. The Indians work the wool into cloth, gloves, stockings, &c., which are very strong, and look as well as those made from the best sheep's wool. The fleece of a single animal has been found, according to Pennant, to weigh as much as eight pounds."

The first paper is upon the operations at the *Government Experimental Garden*,—then follow papers upon *Fertilizers, Notes on the Recent Progress of Agricultural Science*, on *Observations of English Husbandry*, by Judge French, on *Irrigation*, on *Grasses for the South*, on *Cattle Disease*, or Pleuro-Pneumonia, *Bee Culture*, the *Culture of Fish*, on *Insects Injurious to Vegetation, Wine-Making, Grape Culture*, in the open air and in Graperies, on the *Forests and Trees of North America*, a very interesting paper on *Culture and Manufacture of Tea*, one on Notices of *Chinese Agriculture* and its *Principal Products*, and a List of the *Agricultural Inventions* or *Discoveries* for the year 1860.

These articles are ably written, and perhaps occupy the space as well as anything that could have been selected. The mechanical appearance of the volume is superior to that of its predecessors, with the exception that the type used is too small. Better give us a less quantity on the good old "small pica," or at least, "long primer" type, than crowd in more matter on a smaller type.

Screwing on Nuts.—We have sometimes known nuts on threshing machines, circular saws, &c., to be found so tight that no wrench would remove them. This was because they had been held in the hand till they became warm, and being then applied to very cold screws in winter, they contracted by cooling after on, and thus held the screw with an immovable grasp. Always avoid putting a warm nut on a cold screw; and to remove it, apply a large heated iron in contact with the nut, so as to heat and expand it, and it will loosen at once —or a cloth wet with boiling water will accomplish the same purpose.—*Country Gentleman.*

To Stop Bleeding.—A correspondent of the *American Agriculturist* writes that bleeding from a wound on man or beast may be stopped by a mixture of wheat flour and common salt in two parts bound on with a cloth. If the bleeding be profuse, use a large quantity, say from one to three pints. It may be left on for hours, or even days, if necessary.

For the New England Farmer.

METHODS OF ENRICHING LANDS.

I noticed an article in one of your late papers on *the best method of enriching land*, recommending plowing in green crops as perhaps the best. There are two methods the farmer may practice to enrich the soil. One is, to plow in green crops, as recommended in the *Farmer*, the other is to raise hogs, and I am rather in favor of the latter. With good management in raising swine, you can generally get their cost, and something more, but not always; some years there will be a loss. Notwithstanding this, the farmer should pursue a steady course, year after year.

I have, in my day, had considerable experience in raising hogs, and my practice was to select the best breeds, raise my own pigs, feed well, and give them a dry, clean bed. Cooking their food is a good practice. Some forty years since I read in an agricultural work a description of the method practiced among the best farmers in Pennsylvania, of having two vats for fermenting the meal—one to use after it had fully fermented, the other while it is fermenting. I have tried it but partially; I supposed the hogs would not relish it as well, but found they seemed to like it the better. This fermentation should be conducted on the same plan as distillers adopt, carrying it to the same point. I am inclined to think this is the cheapest method of cooking their food.

Those who make cider may use sweet pomace to advantage—the pomace is made worth more than before after the cider is pressed out, by boiling it and mixing meal with it. I mean for shoats that are from four to six months old.

One word or two on plowing in green crops. Any green substance is worth double put in the ground green than it is after drying. For this reason, I cover up all weeds when I hoe in the garden, or in the corn or potato field; I always cover all my potato vines as I dig them, it is considerably less work than to collect them and put them in the hog's pen, as many farmers do.

If you get a large crop of weeds in your garden about the middle of August, commence on one side, make a hole four or five inches deep, pull in the weeds and cover them two or three inches deep, and you almost destroy your crop of weeds; the seed will all sprout but none will ripen, and you will find your garden enriched by your great crop of weeds. But if you suffer them to ripen, your land is greatly impoverished.

By raising hogs and attending to them, giving loam, horse dung, weeds, and any and all substances that can be made into manure, you can go on increasing the value of land, I think, cheaper than in any other way. DANIEL LELAND.

East Holliston, Jan. 1, 1862.

COMPOSITION TO STOP LEAKAGE.—A correspondent of the Lynn *News* gives a recipe for a cheap composition with which leaks in roofs may be effectually stopped. Having a leaky "L," he says:

"I made a composition of four pounds of resin, one pint of linseed oil, and one ounce red lead, and applied it hot with a brush to the part where the "L" was joined to the main house. It has never leaked since. I then recommended the composition to my neighbor, who had a dormer window which leaked badly. He applied it, and the leak was stopped. I made my water-cask tight by this composition, and have recommended it for chimneys, windows, etc., and it has always proved a cure for a leak."

For the New England Farmer.

PLEURO-PNEUMONIA.

GENTLEMEN:—As an article is being published by the press, under the above caption, it seems proper that the facts in the case should be stated.

Mr. C. C. Barnes, of Squantum, a farmer, called Jan. 7th, at the office of Ex-Gov. Brown, stated that he had a disease among his cattle, and requested him to visit his farm, accompanied by some one qualified to judge of the nature of the disease. Accordingly, he called upon Mr. Secretary Flint, inviting him to go with him, but he being unable to go, immediately addressed me a note, requesting me to "give it a full examination." The next day, Gov. Brown and myself visited the farm of Mr. Barnes, from whom we received the following statements:

One of his cows was taken sick the last week in April, and died in May, between the 12th and 16th; upon opening the thorax considerable fluid was present, and the lungs diseased. Another, taken sick the latter part of November, died the first week in Deeember. On the same day that the last one died, a butcher came for a fat cow; while there he witnessed the diseased lungs of the one that died, and afterwards stated to Mr. Barnes that the fat cow's lungs were as bad as the lungs he saw Mr. B. take out of the one that died. The above is nearly the language used by Mr. Barnes.

I then examined four of the herd, consisting of nine head; one of which had been sick six weeks since, and partially recovered, though she coughs much; a portion of one lung is solidified. Another had acute disease in an aggravated form, the left lung entirely useless, and the right also diseased; in breathing, every expiration was accompanied by a grunt, or moan. Another, with acute disease, coughs much, has quickened respiration, with loss of appetite. The remaining one I did not like to give an opinion of, as she was far advanced in gestation.

As Mr. Barnes was satisfied that the second one mentioned above could not recover, he desired to have the lungs examined. Accordingly she was killed. On opening the thorax, from six to eight quarts of serum was present, and the left lung had adhered to the costal pleura and the pericardium by the intervention of exuded lymph. In cutting into the lung, nearly the whole of it was solid, presenting the peculiar appearance always found at that stage of exudative pleuro-pneumonia. The

anterior portion of the right lung was also diseased, and of the same character.

As Dr. Ellis had expressed a desire to see the lungs of an animal in the acute stage, I brought them to Boston and delivered them to him; others, doubtless, had an opportunity to see them.

E. F. THAYER,
Veterinary Surgeon, No. 15, United States Hotel.

Boston, Jan. 14, 1862.

IRELAND AS SHE IS.

Ireland is not learned in a day. The Englishman who fancies that he has grasped the social characteristics and political necessities of the country when he has made himself master of "Harry Lorrequer," "Castle Rack-rent," and "O'Keefe's Farces," and digested the matter of fifty "Lenten Pastorals" and "Tenant-right Resolutions," will be surprised at the magnitude and the solidity of the interests, and at the gravity and subtilety of the character, which on a closer contemplation comes forth, like the great headlands of our seacoast, into stern and massive relief. He finds that the caricatures of a dead and buried generation are not portraits of existing men and manners, and that the clamors of the country are not its wants. He fails to discover anywhere the tipsy and insolent gentry horsewhipping a rack-rented tenantry, and pistoling one another at eight paces from muzzle to muzzle—who figured in his dream of Ireland.

He sees little or nothing of the "squalid apehood," the blundering, the drunkenness, the fatuous good-nature, and indiscriminate battery and assault, without pretext or purpose, which are described as the amiable peculiarities of a peasantry who will barter their last articles of clothing for a bottle of whiskey to treat you with, and then, with a good-humored "hurroo," break your head without rhyme or reason, and finally give you their heart's dearest affections in exchange for a good joke or an indifferent pennyworth of tobacco. The whole of this monstrous mirage vanishes the moment he sets his foot upon the soil of Ireland. He beholds, instead, a gentry as intelligent, hard-working, enterprising, thrifty, and, in the highest sense respectable, as any in the empire; and a peasantry as industrious and temperate, receiving a fair day's wages for a fair day's work.

He will see a tenantry possessed of improving farms, at reasonable rents, and of sufficient dimensions; and, above all, a vast and energetic Protestant population, self-reliant and prosperous, and altogether unlike his ideal of an Orange community. He will find his notions of the relations of parties, the social facts of the country, and the wants and abuses of its domestic system, extensively modified, and still more extensively demolished. And if he possess (a faculty more uncommon than is supposed) the power of simple perception and energy to think and conclude for himself, he will discard nearly all he has previously conceived, and commence, *ab initio*, the study of the grave and complicated question. — *Dublin University Magazine.*

The road ambition travels is too narrow for friendship, too crooked for love, too rugged for honesty, and too dark for science.

HIGHWAY ROBBERY.

This is a crime often perpetrated in New England by men of respectability and wealth. The plan of operation is somewhat as follows: A man owning land bordering upon the highway, desires to re-set his fence, or re-lay his wall. Immediately he begins to mark out the bounds and limits of the proposed change. Eight men out of every ten, instead of building the new fence where the old one stands, encroach upon the road from six inches to two feet. Such encroachments we have witnessed scores of times. The usual excuse for thus robbing the highway, is the laudable desire to have "the line straight." The eye for the beautiful must be gratified, *probably*. But if in "making the line straight," the location of the fence or wall must be changed, why does it always happen that the change is never made at the expense of private property? Why do men never straighten bounds by cutting off narrow strips of land from their own possessions? Why must the highway be *robbed* to gratify a private whim?

The fact in the case is just here. Owners of land are as avaricious as owners of merchandise; and they adopt this mean way of getting a foot or two of soil without paying for it. The plain terms for such deeds are meanness and robbery. We never see a fence crowded into the road in this way, without saying, a mean man has done it.

Then again it often happens that the rights and convenience of the travelling public are infringed and imposed upon by these highway robberies. The width of the road is seriously diminished, illegally, and by men who would be greatly incensed, should they be openly accused of dishonesty. We call to mind a bit of road, perhaps two furlongs in extent, where the land on both sides is owned by one man. Within twenty-five years, the fences on either side have shown a gradually increasing attraction for one another, and if they approximate during the next quarter of a century as rapidly as they have approximated during the last, they will at the end of that period be united. The road will be swallowed up by the greedy meanness of the owner in question.

Then, too, we have often noticed that roadside fences require new modelling oftener than any others. The reason for this is not apparent. Undoubtedly it is to be found in the *peculiarities* of the case—some especial reason for each especial removal.

A few years ago, one of the towns in this Commonwealth chose an agent at a public meeting, whose duty it was to have all the fences in the town, on either side of the highways, moved back to the place assigned them by law; or what amounted to the same thing, this agent was directed to make the highways a *legal* width. He entered upon his duties; when behold it was found that a large majority of the land-owners in town, must take down their fences and walls, bordering on the road, and move them back, in some instances, a number of feet! Here was an unlooked-for discovery, and the agent was compelled, by the same public sentiment that gave him his office, to abandon the duties of that office. A similar experiment, undertaken in almost any farming community, would produce similar results. Every town ought to appoint such an agent, and then sustain him in the faithful discharge of the work assigned him.

Mean men there are in every community. Every form of meanness has its own peculiar style of manifestation. This common custom of robbing the highway is not only a meanness, but it is a crime—a theft really a robbery—a taking by one man of property which does not belong to him, but which does belong to the community.

Another instance of this same class of meanness and misdemeanors, we call to mind. It chanced, in the construction of highways, years ago, that three roads formed the three sides of a triangular piece of land, containing a little less than a quarter of an acre. This triangular piece of land was regarded as "common" land; no one held any title to it. Such bits of "common" land are often met in the country. This place in question was fenced in by a wealthy man, whose farm was near by, and cultivated as a garden. It is so cultivated and held at this time, by a man who can show no title to it whatever. The meanness of this act will be apparent, when it is stated that the roads on all three sides of this garden are illegally, inconveniently, and in some places, dangerously narrow.

So it happens that wealth and respectability are cloaks sufficiently large to "cover a multitude of sins."—*Clinton Courant.*

AGRICULTURAL SOCIETIES.

VERMONT STATE AGRICULTURAL SOCIETY.—The annual meeting of this Society was held at Bellows Falls, on Friday, Jan. 3, 1862. The following gentlemen were elected officers for the ensuing year:

President—H. HENRY BAXTER, of Rutland.

Vice Presidents—Edwin Hammond of Middlebury; J. W. Colburn, of Springfield; Henry Keyes, of Newbury; John Jackson, of Brandon.

Recording and Corresponding Secretary—Daniel Needham, of Hartford.

Treasurer—J. W. Colburn, of Springfield.

Directors—Frederick Holbrook, of Brattleboro'; E. B. Chase, Lyndon; H. S. Morse, Shelburne; D. R. Potter, St. Albans; Henry G. Root, Bennington; David Hill, Bridport; John Gregory, Northfield; Elijah Cleaveland, Coventry; Nathan Cushing, Woodstock; George Campbell, Westminster.

Resolved, That the next annual Fair be held at Rutland, on the 9th, 10th, 11th and 12th days of September next.

Col. NEEDHAM, the Secretary, made a long report, full of interesting particulars and valuable suggestions. In him the members have found an intelligent and energetic officer.

MASSACHUSETTS HORTICULTURAL SOCIETY.—The Transactions of this Society for the year 1861 are before us. It has reports on *Ornamental Gardening*, on *Flowers*, *Fruits*, and *Vegetables*, all of which indicate research and show progress. A short report on the culture of *Polianthus Tuberosa*, commonly called *Tuberose*, by Mr. E. W, BUSWELL, of Boston, is interesting, because he tells others just how to do the thing for themselves, and because "he looks upon flowers in general, and tuberoses in particular, as among the *necessaries* of life, and as such is willing to labor for them."

HINGHAM AGRICULTURAL AND HISTORICAL SOCIETY.—This young giant of a Society, only having been in existence since October, 1858, now presents us with a Book of its Transactions, of 200 pages, which—like all else it has done—is printed so as to reflect credit upon the Art. These Transactions have been compiled by the Rev. E. P. DYER, whose fine agricultural tastes have enabled him to present everything in an attractive light. Nothing is omitted that should be preserved, and no topic is presented at too great length. The awards of premiums are given in a compact form, and dinner-table speeches are considerately abridged. The book sparkles with wit and poesy, and is a model of its kind.

FRANKLIN COUNTY AGRICULTURAL SOCIETY.—At the recent annual meeting of this Society, Hon. H. W. CUSHMAN, of Bernardston, was elected its President, Mr. H. W. CLAPP, declining to serve longer on account of ill health. JAMES G. GRENNELL, Esq., of Greenfield, was re-elected Secretary and Treasurer. The Society cannot fail to prosper under the administration of such officers.

HAMPSHIRE SOCIETY.—This Society has recently erected a fine hall, which it is thought will prove an advantageous measure. Its officers are:

President— T. G. HUNTINGDON, of Hadley; *Secretary*—H. R. Starkweather, Jr., of Northampton; *Treasurer*—A. Perry Peck, of Northampton.

BERKSHIRE AGRICULTURAL SOCIETY—The annual meeting of this society took place on the 7th inst. The officers elected are:

President—THOMAS COLT, Pittsfield; *Secretary* John E. Merritt, Pittsfield; *Treasurer*— Henry M. Pierson, Pittsfield.

THE ONLY KNOWN USE OF CRINOLINE.—The fruit trees in my orchard-house have been much blighted this year; the tops of the young shoots curl up. I have, I think, destroyed the fly now. Not being able to smoke the house in the ordinary way, I have used a lady's crinoline. I bought a cheap one covered with glazed calico, pulled it up round a pole, making it as close as possible. It is just the size to cover one of Mr. Rivers's miniature trees. I use a fumigator, and leave on the crinoline till the next morning. I then syringe the trees. The fly has no chance against the tobacco in so small a space; and the tree does not appear the worse.—*Cor. London paper.*

WE double all the cares of life by pondering over them. We increase our troubles by grieving over them. A scratch becomes a wound, a slight an injury, a jest an insult, a small peril a great danger, and a slight sickness often ends in death, by the brooding fears of the invalid.

CULTURE OF THE TURNIP CROP.

It is believed by many that the culture of turnips as food for stock is unprofitable. In the hope of making it more attractive, we present the reader with some very beautiful engravings which we have had executed especially for our columns, of *Laing's* and *Skirving's Improved Purple-top Swedes*, and a cut of the common *White Globe Turnip*.

Like other crops, this may not be equally advantageous to all farmers, as something must always depend on the peculiar circumstances which surround each case. Under the ordinary circumstances in which our farmers find themselves, we believe that a portion of the crop of nearly every farm, should be in turnips, of some kind. This opinion is founded upon the personal *practice of feeding turnips to stock for many years*, and confirmed by the intelligent statements of others who have gained their opinions by a similar practice.

It is a mistaken opinion, we think, that makes the value of the turnip to consist merely in its amount of nutritive qualities, as compared with hay or grain. As well might we say that *salt* is unprofitable for stock, measured by the same test. The amount of nutrition in grass is small, compared with well-cured timothy or clover hay—yet none will say that the culture of grasses is unprofitable for our cattle. It is as much the *alterative* properties of the root that gives it value, as the nutritive properties which it contains, and probably more.

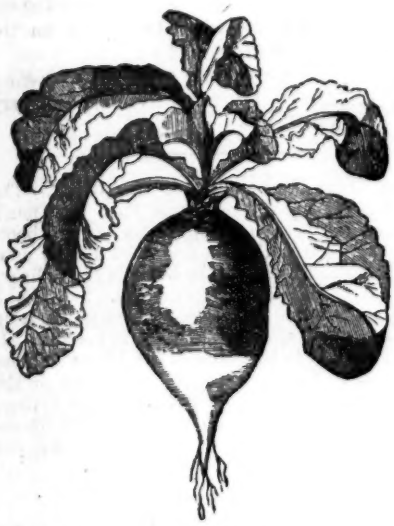

Figure 1.

The first of these turnips which we introduce, is *Laing's Improved Purple-top Swede*, which differs widely from the other varieties of Swedes, in having large, entire, cabbage-like leaves, which, by their spreading, horizontal habit of growth, speedily cover the soil between the drills, prevent evaporation from the surface, and materially check the growth of weeds. It is very hardy, of a fine, globular shape, no neck, and rarely exhibits any tendency to run to seed in autumn. It grows to a good size, keeps well, and bears a very high character.

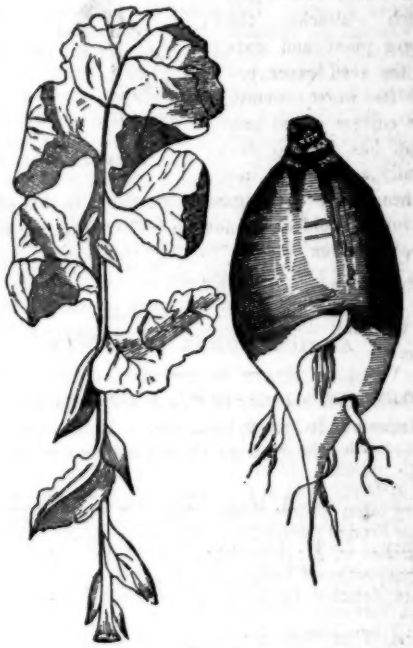

Figure 2.

The next is called *Skirving's Improved Purple-top Swede*. This is a well-known variety among our farmers. It was introduced into cultivation in England, in 1837–8. It grows fair, is a good cropper, comes early to maturity, and keeps well, when properly stored. The root is of an oblong shape, and grows higher out of the ground than the old sorts. This habit of growth renders it more readily injured by frost when left standing in the field too late. It is a beautiful plant while growing, is almost as smooth as glass, and the flesh is crisp, sweet and juicy. Cattle fed upon them once or twice are exceedingly eager to get them again.

The third is the common *White Globe*, and when grown on new land, in a favorable season, is as smooth as a baby's cheek. The bulb is globular, and skin perfectly white; moderately large head; neck fine and small, and tap-root slender. On soils quite rich, this variety has a tendency to develop itself to a great size, and to become woolly in texture. The flesh is sweet and juicy,

having less of that peculiar turnip flavor than the white, flat turnip, so common several years ago.

FIGURE 3.

The turnip crop is of easy cultivation, and usually escapes the ravages of insects, the little black flea-beetle, which attacks the young plant and eats off the seed leaves, being its worst enemy. The culture of no one plant has had so decidedly a beneficial influence on the agriculture of England, as that of the turnip—and we cannot but believe, that when more attention is given to it in this country, so that we shall better understand its cost of production and its effect upon the stock to which it is fed, we shall find its extensive cultivation profitable.

POISONOUS PROPERTIES OF BRINE.

It may not be known to all that brine, in which meat or fish have been salted, is poisonous to domestic animals. If left in their way they will partake as freely of it as they will of pure salt, when it very often proves fatal. The *L' Union Medicale*, a French publication, gives an account of the researches of M. Reynal in regard to the poisonous properties of brine. From a series of experiments detailed, he draws the following conclusions:

First, That three or four months after its preparation it acquires poisonous properties.

Second, That the mean poisonous dose for a horse is about four pints; for the hog, one pint; and for a dog, four to five gallons.

Third, That in less doses it produces vomiting in the dog and hog.

Fourth, That the employment of this substance mixed with the food, continued for a certain time, even in small quantities, may be fatal.

We know from experience, says the *Valley Farmer*, that brine, if swallowed by hogs and other animals, will prove fatal, yet we doubt if the subject is susceptible of the definite results as stated by M. Reynal, for the degree of the poisonous properties of the brine depends on various circumstances. We have known a much less quantity to prove fatal than that stated above.

TO CURE SHEEP SKINS WITH THE WOOL ON.—Take one tablespoonful of alum and two of saltpetre; pulverize well and mix together thoroughly. Sprinkle this powder upon the flesh side of the skin and fold together with the wool out; hang up in a cool place. In two or three days, as soon as dry, take down and scrape the flesh with a blunt edged knife till clean. This completes the process. Such skins make excellent saddle covers.—*Michigan Farmer.*

For the New England Farmer.

DOES FARMING PAY?

There are some things so self-evident that they do not admit of proof. Twice five makes ten, is a self-evident fact, and you may argue and talk about it as much as you please, and confusion will only be the result, and will not make the fact any more plain than its simple statement. Now it strikes me pretty much in the same way, in regard to the profits of farming. The latter may not be so plainly self-evident as that twice two are four, but the fact that farmers, as a class, make a profit, are good livers, solid men, and enjoy as many of the rational comforts of life as any other class, and many more than some, is so very self-evident to any one who will investigate the matter and thoroughly inform himself on the subject, as hardly to need comment.

In an article published in last week's *Farmer*, I called the attention of its readers to this matter, and the subject is renewed at this time because the other day, in a conversation with one of our farmers, he called in question its statements. The fact is, we are so accustomed to some, very many, of our every-day blessings, that we do not appreciate them, or the enjoyments and comforts which they afford us, until we are deprived of them. It is something so in regard to farming and its profits. Even at the present day, in this enlighted nineteenth century, of Rebellion and War—when the roar of the Lion comes across the waters to frighten *fools*—many farmers look upon their calling as low and vulgar, and themselves as inferior to men in other callings, and are constantly grumbling about the hard times, poor crops and a non-paying business.

Now the fact is, all this class of men are doing as well by farming as they would at anything else—doubtless, far better; as it is, perhaps they rub and go; they are not the kind of men to succeed in anything and make it a successful and profitable business. My friend, the farmer, brought up the fact that during the past season he made a visit to his native town, Middleboro', and he visited a number of farmers, who, in his boyhood, had fine, flourishing farms, but now a number of them are deserted, run down; and once cultivated fields are in wood or pasture; and the majority are not so good, and would not bring to-day, in money, what they would thirty or forty years ago. And he asked the question, What is the cause of this, if farming is profitable; why did not the sons of the fathers stick by the old folks and farm, instead of going to other callings and getting rich? His answer was, Because farming was not profitable, or they would have continued to carry them on.

It would take too much space and time to answer my friend, and such as reason like him, and though his question looks fair and legitimate, yet any one who will inform himself can see that it really is not so, and is not a valid argument to bring against the profitableness of the business of farming. This question was very fully discussed about a year ago in the columns of the *Farmer*. I should be glad to have some of its intelligent farmer readers take up the question again and discuss it in a thorough and systematic manner, that our young men may clearly see what all progressive, go-ahead farmers declare, that farming, prop-

erly carried on, will pay six per cent. on the capital invested, and not unfrequently a much larger interest. A business which does this, a sane man ought to be satisfied with. Suppose farmer Sheldon take this matter up, and tell the young men of New England how to manage a farm to have it pay lawful interest on the cost, leaving out the "fancies." N. Q. T.

King Oak Hill, 1862.

For the New England Farmer.

ASHES OR LIME AS A FERTILIZER.

Inquiries have been made into the causes of the fertility and barrenness of land, the food and nutriment of vegetables, the nature of soils, and the best modes of ameliorating them with various manures.

Ashes for top-dressing operate very favorably upon exhausted soils; many of which produce nothing but white top or June grass.

I have a knoll on my farm that produced a small crop of white grass; I thought I would try to renovate it by top-dressing with ashes. I spread on it at the rate of one hundred bushels of leached ashes to the acre. The second year after spreading, the white grass was completely subdued, and its place supplied with a thick, heavy crop of clover and timothy.

White grass is of spontaneous growth, and flourishes best where the land is most deficient in carbon and lime. A proper proportion of ashes, spread broadcast or plowed in, will restore it to its original state of productiveness. Ashes is the best fertilizer on such land, because it replenishes the soil with every ingredient of which it is the most deficient.

Lime in a heap composed of meadow muck and animal manure, after being thoroughly pulverized, when applied to the soil, will very nearly supply the deficiency of salts, and produce satisfactory results. The use of lime in agriculture may be attributed to its property of hastening the dissolution of all animal and vegetable matter, and of imparting to the soil a power of retaining a quantity of moisture necessary for the nourishment and vigorous growth of plants. J. W.

East Sullivan, N. H., Dec. 28, 1861.

To Prevent Tools from Rusting.—Thousands of dollars are lost each year by the rusting of plows, hoes, shovels, etc. Some of this might be prevented by the application of lard and resin, it is said, to all steel or iron implements. Take three times as much lard as resin, and melt them together. This can be applied with a brush or cloth to all surfaces in danger of rusting, and they can easily be kept bright. If tools are to be laid by for the winter, give them a coating of this, and you will be well repaid. It can be kept for a long time, and should always be on hand, and ready for use.

Wedges Rebounding.—Take a piece of dry bark and set in the opening, then set in the wedge anew, so as to split this piece of bark, and it will prevent any further trouble. So says the *Country Gentleman.*

LEGISLATIVE AGRICULTURAL SOCIETY.

[Reported for the Farmer by D. W. Lothrop.]

The second meeting of the series was held at Representatives' Hall, on Monday evening last. The subject for discussion was *Agricultural Education*, and His Excellency Gov. Andrew being present, as was expected, was called to preside.

He observed that his studies were not compatible with the culture of the earth, and, compared with many others present, he was ignorant of farming. But he possessed a love for the soil, and such a regard for mother earth was generally innate in the hearts of all men. Men are easily brought back to the old homestead, and youth who come to the city or bustling town delight to retire and contemplate the scenes of their childhood, and enjoy the rich and varied beauties of nature. Generally speaking, all men are real or prospective farmers. In alluding to the strong desire of some young persons for general and scientific information, he spoke of a young man who sent to him from the country for a grammar and dictionary of the Sanscrit language! Passing to the soil, the Governor spoke of farming as it was years ago, in Cumberland county, Maine—the scene of his early childhood—and repeated a humorous distich of an old farmer in regard to the poorness of his land. There were only three orchards in the place, and the fruit of those very poor. But the impediment to farming in Maine was, that the farmers were but half-farmers, part of their time being devoted to the lumber business. Hence the difference to be seen between their farms and those of Worcester county in this State; and he concluded that a farmer's time should not be divided. He also alluded to a clergyman in the State of Maine, who, with but a small and rather sterile piece of land, containing an apple orchard, had, by dint of attention to it, made it a source of income, and was enabled thereby to send a son to College. But the general features of agriculture in that State had greatly changed for the better, as he had had occasion to observe after an absence of twenty-five years. Now the farmers have good fences, painted barns, more orchards, and more highly cultivated soil. And this is the result of books, newspapers and debating clubs, where the mind is sought to be improved as well as the crops. Nothing touches life at so many points as agricultural education, for we are all directly or indirectly connected with the soil. That was the truest political economy which gave a large number of farmers, without which a nation cannot be strong in war nor independent in peace. A nation of shop-keepers could not stand against the rest of the world. The Governor concluded by observing that he hoped he might have excited a spirit of discussion upon this important subject, as every man owes a debt to the earth that sustains him.

Dr. LORING, of Salem, being called upon, said that he came as a learner, not as a teacher. He remarked that the proper basis for agricultural education in New England was the introduction into our schools of some elementary work on agriculture, and this would tend to make it attractive to the rising generation. We have done much in New England by books, periodicals, &c., and they should not be lost sight of. And we should not forget what the Commonwealth, and what agricultural societies have done. He commended the Agricultural Manual, published by the recommendation of the Massachusetts Agricultural Board, and said it contained much matter for farmers in a desirable form. He was not prepared to advocate agricultural colleges, yet they may be serviceable in England, where capitalists require bailiffs to superintend their farms. Our farming organization is so different from that of Europe, that such large institutions would be of doubtful utility with us, at present, at least. He spoke of the importance of learning from books, as farmers were slow to give and transmit traditionally their experience, and related some facts in illustration. He impressed the idea that agriculture need not be drudgery, and that it can be made superior to all vocations, required much thinking, and was more difficult to pursue than the various mechanical trades.

Mr. WHITE, Secretary of the State Board of Education, being called upon, said he did not feel competent to speak upon the practical part of farming, though, interested in general education. He related the anecdote of a painter, who, when asked what he mixed with his colors to make them so superior, replied "Brains!" And, said the speaker, this is what we should mix with manure! Education underlies all that is important in life, and introduces real wealth. Broad farms decrease with wealth and population, and men narrow their bounds, and by the aid of science, cultivate downwards—into the earth. Scratching the soil will not do; we must go deep and mix brains with our operations. He thought all the great business operations of life should be begun early to be well understood, and to secure success, and of course farming was included. Every man owns land or expects to, as all have an interest in it. The introduction of agriculture into our schools as a study —besides being useful otherwise—would have a religious bearing and influence. Farming is a religious occupation—one of obvious dependence upon God; and the tillers of the soil should be the best educated, as with them lay the broadest field, on which and with whom he hoped to end his days.

Mr. FLINT, Secretary of the Board of Agriculture, being invited to speak, said he had given the subject much thought, and that it was no less important than broad. The practical question is, what is the best way to educate? Newspapers and Societies had done very much. He was not opposed to an agricultural college, at a proper time, but we must begin at the beginning. The great utility of expensive manual labor schools and colleges in Europe was doubtful, and by some, these institutions had been pronounced failures. The agricultural colleges of this country are yet experiments. For a further expression of his views, Mr. Flint read from a report of a committee to the State Agricultural Board, published in the Massachusetts Agricultural report of 1859, page 130; also from the Ohio *Farmer*, showing the importance of the introduction of agriculture into our schools, the pleasure its varied subjects would give, the failures it would prevent, &c. This would be beginning at the foundation.

Mr. NORTHROP, Agent of the Massachusetts Board of Education, being called upon, said agriculture should be taught early. In our schools we should not give books so much as things and facts. There was a growing thirst for knowledge, as stated by His Excellency the Governor, and we should teach children to reflect. They should see and feel the natural objects of their studies as much as possible. Plato used to say he regretted the art of writing; and we might almost regret the art of printing. Books were the art of man—nature the art of God. Farming was good education for the mind, and best to develop the imagination.

Mr. DEWITT, of Agawam, had some views rather counter to the previous speakers. He thought the Agricultural Manual, if introduced into our schools to be taught to boys under 16 years of age, would fail in five years. In seminaries and with older children, it might perhaps be of more use.

Mr. WHITE replied that he had reference to higher classes.

Mr. DAVIS, of Plymouth, had read the Manual carefully, and thought that all persons might be enlightened by it. He illustrated the importance of education in farming, by stating some facts about the growth of timothy grass with its bulbous root. He spoke also of the large mammoth agricultural institution recommended by Dr. Hitchcock, with more professors than Harvard College, but said it would not do. Let us teach agriculture in our ordinary schools, and rise by gradation, and by and by we may attain to a county school, such as has been by some recommended.

Mr. SEARS, of Yarmouth, said he did not think the scholars were too young in our common schools to study agriculture, and he would have it there taught. Young boys have more ideas of life than we imagine.

Mr. CAPEN, of Boston, spoke generally and earnestly upon the subject, alluding, among many

other things, to the prejudice in some of the Western States against educated farmers. He thought the farmer could find little or no useless learning, and advocated his studying the Latin and Greek classics, and in fact the classics of all nations, English, French, German, &c.

The time for closing the meeting having passed, Gov. Andrew announced the subject for discussion at the next meeting—*Crops, and the Profits and Economy of their Cultivation.* Adjourned.

For the New England Farmer.

INJURED APPLE TREES.

MR. EDITOR:—I saw an article in your paper from your New Bedford correspondent respecting the loss of his Baldwin apple trees.

He undoubtedly grew them too fast. When they grow fast, they grow later in the fall, hence the danger of growing them too fast.

In the winter of 1830-31, thousands of apple, peach and cherry trees were killed. There was no frost to stop their growing, and on the first or second day of December it froze up tight; the sap being up, it started the bark and killed thousands of the finest growing trees, and those that grew the most suffered the most.

Some months since, your Sandy River correspondent made inquiry of the reason of his apple trees having been injured on the south side. I have never known apple trees that were properly cared for and judiciously managed, to be injured on the south side. But I have known the difficulty take place, and as I have supposed, from three causes.

1. From want of nourishment; the body of the tree being exposed to the sun, I have supposed the heat of the sun penetrated through the bark and dried it so as to stop the flow of sap, and the worms always get in.

2. Cutting off too much; the same difficulty takes place from an overflow of sap.

3. When the sprouts are allowed to fill up the top or middle of the tree, the top branches are deprived of nourishment, and the same difficulty takes place. I have merely stated the reasons, as they have appeared to me, as the cause of the difficulty spoken of, but I cannot say that I am sure of it. DANIEL LELAND.

East Holliston, Dec. 26, 1861.

AMERICAN POMOLOGICAL SOCIETY.—We learn, says the *Journal*, that the President of this national association, Hon. Marshall P. Wilder, has appointed September 17, 1862, for the commencement of its ninth session, which is to be held in Boston. This institution was established in the year 1848, and has held meetings in the cities of New York, Boston, Philadelphia, Cincinnati and Rochester, and has exerted a powerful influence in systematizing and advancing the science of Pomology throughout the Union. In conjunction with this appointment, the Massachusetts Horticultural Society have ordered its annual exhibition for this year to take place on the same week.

EXTRACTS AND REPLIES.

CULTURE OF WHITE BEANS.

Will some of your kind contributors be good enough to give me a little (or a good deal) of information in regard to the cultivation of white beans on the following points, viz:

1. Are they a tolerably certain crop?
2. From what causes are they most liable to suffer injury?
3. What kind of soil is best adapted to them?
4. What is the most approved method of culture?
5. What is the average yield from a bushel of seed?

This, perhaps, is asking a good deal; if so, please excuse it. I have never taken the liberty before, but while my hand is in,

6. I must ask you, as a further favor, to give me the title of a standard work on farming—one that will be a real help to a new beginner.

A SUBSCRIBER TO MONTHLY.

Jan. 15, 1862.

REMARKS.—1. White beans are very susceptible to frost—aside from this, they are as sure a crop as any we cultivate, when properly managed.

2. From poor land, want of manure and proper cultivation. The almost universal practice is to crowd the white bean crop off to some arid sand plain, or gravelly knoll, the poorest piece of land on the farm, throw in a little chip dirt or something equivalent, and then expect a crop of beans! Fortunately, such expectations are not often verified. On a proper soil, with generous manuring and good attention, a paying crop of white beans may always be expected. When planted early and kept rapidly growing they will rarely be injured by autumnal frosts—indeed, they will usually be fit for harvesting in August. We are not aware that they are injured by insects of any kind excepting the grub or cut-worm which sometimes attacks them. Sometimes a slight rust takes them, but not often, in our climate.

3. The soil best adapted to their growth is a rich gravelly or sandy loam. In England, it is said, strong clay soils and heavy marls are best—and those may be good if thoroughly drained—but here we think any of our good Indian corn land is best. The sandy barrens where they are usually placed, are no better for beans than for our other farm crops. If they are highly manured, and the season is a moist one, a good crop would probably be the result.

4. Plant in hills or drills, and leave the rows two and a half or three feet apart, so as to allow of their cultivation with the horse. If the soil is good, and well manured, great care must be observed not to *seed too highly.* If in drill, the plants should not stand nearer than six inches of each other—and if in hills, three or four plants are enough.

5. Do not know. On such land, and with such

attention as we have spoken of, an acre ought to bring twenty-five bushels.

6. The *Farmers' and Planters' Encyclopedia*, as a single book, is the best we are acquainted with; but this must be used cautiously, as much of it relates to English practices and climate. Buel's *Farmer's Companion* and the *Manual of Agriculture*, just prepared by Messrs. EMERSON and FLINT are also excellent works.

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A BARN CELLAR OUTSIDE.

I intend to build a barn on steep land, with a cellar outside to keep roots, over which I intend to have a cart road to a high floor. Will a coating of water-lime cement make it water proof, and save the planks with two or three feet of earth,

WM. F. GIBSON.

Ryegate, Vt., Jan., 1862.

REMARKS.—We should think not. The cement might prevent the water from percolating through to the planks, but the moisture of the cellar would keep them damp—unless with a complete system of ventilation—which would eventually rot and ruin them. Can you not throw one or two stone arches over the cellar, and thus make permanent work of it? Would not such work be cheaper in the end?

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SALES FROM SHEEP.

Will you please ask Mr. Nathan Bottum, of Shaftsbury, Vt., to inform us how his sales from 175 sheep amounted to $2000?

Jan. 1, 1862. WILLIAM B. WARD.

—

MOLES AND WOODCHUCKS.

I wish to ask through the *Farmer*, what is the best way to get rid of moles and woodchucks?

Hatfield, Jan. 1, 1862.

FARMERS' HIGH SCHOOL.

We have before us a catalogue of the Officers and Students of the *Farmers' High School of Pennsylvania*, for the year 1861. The college year of ten months will commence about the middle of February next. The Faculty says:

The student has an opportunity of seeing all the practical operations of the farm, garden and nursery, in the most approved manner, with the use of the best manures, seeds, tools and implements; and, what is of more importance than this, he studies in the class-room and laboratory the scientific principles involved in all he does, and by becoming a scientific man and analytical chemist, he is enabled to protect himself and others against the frauds and cheats that are continually being practised upon the uneducated, by dealers who are themselves either ignorant of science, or use it to impose upon the community. He learns how to study the geology, mineralogy and chemistry of the soil he cultivates, the botany of the plant he grows, and the laws of health and diseases of the animals he uses.

In a word, he is made thoroughly acquainted with the laws and phenomena of the material world with which he is in immediate contact, a knowledge of which is essential to their material success, or intellectual pleasure, in the pursuit of the duties of rural life.

Those desirous of learning more of the institution, may do so by addressing Dr. E. PUGH, Farm School, Penn.

WINTER-TIME.

Though Winter reigns, Beauty still holds her throne;
She moulds the snow-flake to its lovely form,
And the few crinkled leaves that mock the storm,
And laugh and chatter while the sad winds moan,
Beauty hath stained with mingled gold and brown.
The patches of bright sky between the showers,
The robin's breast, and moss-floors of lone bowers,
For naked trees and funeral-clouds atone.
Beauty dies not, she walks through forest dim
With feathery feet, when the strange cuckoo-note
Like a friend's voice on the calm air doth float,
And lisping zephyrs chant Spring's advent-hymn;
With the swart Summer and brown Autumn dwells;
And marries Winter in the ice-flower dells.

AMERICAN SOCIETY.

In America, even more than in Europe, there is but one society, whether rich or poor, high or low, commercial or agricultural; it is everywhere composed of the same elements. It has all been raised or reduced to the same level of civilization. The man whom you left in the streets of New York, you find again in the solitude of the far West; the same dress, the same tone of mind, the same language, the same habits, the same amusements. No rustic simplicity, nothing characteristic of the wilderness, nothing even like our villages. This peculiarity may be easily explained. The portions of territory first and most fully peopled, have reached a high degree of civilization. Education has been prodigally bestowed; the spirit of equality has tinged with singular uniformity the domestic habits.

Now it is remarkable that the men thus educated are those who, every year, migrate to the desert. In Europe, a man lives and dies where he was born. In America, you do not see the representative of a race grown and multiplied in retirement, having long lived unknown to the world, and left to his own efforts. The inhabitants of an isolated region arrived yesterday, bringing with them the habits, ideas and wants of civilization. They adopt only so much of savage life as is absolutely forced upon them; hence you see the strangest contrasts. You step from a wilderness into the streets of a city, from the wildest scenes to the most smiling pictures of civilized life. If night does not surprise you, and force you to sleep under a tree, you may reach a village where you will find everything, even French fashions and caricatures from Paris. The shops of Buffalo or Detroit are as well supplied with all these things as those of New York. The looms of Lyons work for both alike.

You leave the high road; you plunge into paths scarcely marked out; you come at length upon a plowed field, a hut built of rough logs, lighted by a single narrow window; you think that you have at last reached the abode of the American peasant; you are wrong. You enter this hut, which looks

the abode of misery: the master is dressed as you are; his language is that of the towns. On his rude table are books and newspapers; he takes you hurriedly aside to be informed of what is going on in Europe, and asks you what has most struck you in this country. He will trace on paper for you the plan of a campaign in Belgium, and will teach you gravely what remains to be done for the prosperity of France. You might take him for a rich proprietor, come to spend a few nights in a shooting-box. And, in fact, the log-hut is only a halting place for the American—a temporary submission to necessity. As soon as the surrounding fields are thoroughly cultivated, and their owner has time to occupy himself with superfluities, a more spacious dwelling will succeed the log-hut, and become the home of a large family of children, who, in their turn, will some day build themselves a dwelling in the wilderness.—*Alexis de Tocqueville.*

SOW SPRING WHEAT EARLY.

"My experience teaches me," says a correspondent of the *Wisconsin Farmer*, "that we must sow our wheat as early as possible. There is hardly any danger of sowing too early. Two years ago I sowed a small piece in Canada club spring wheat on the 5th day of April. That piece yielded 33 bushels to the acre in that poor season. The berry was plump and heavy, weighing 61½ pounds to measured bushel. I continued to sow, as the rains and state of the ground would allow, having but one team, until about the first day of May, and I must say that just in proportion to the date of sowing were the amounts and quality of the crop, the piece which was sown and harrowed the last day of April being badly rusted and not yielding over eight or nine bushels of poor shrunken wheat per acre, while that portion of the field covered about the 10th of the same month, turned out between twenty-five and thirty bushels of very marketable grain. The piece sown about the 18th and 20th of April was not so good as that sown before, yet far better than the last sown."

In connection with these remarks, we will add that of the two wheat crops submitted last year to the Essex County Agricultural Society, one was sown April 7th, and the other, "when the harrow struck the frost." The premium of $8 was awarded to Mr. Paul Pearson, of Newbury, for his crop of wheat, at the rate of 35 bushels to the acre. Pretty good crop for old Massachusetts.

THE ladies are introducing a new and beautiful ornament for the parlor mantle, or centre table. They take large pine burs, sprinkle grass seed of any kind in them, and place them in pots of water. When the burs are soaked a few days, they close up in the form of solid cones, then the little spears of green grass begin to emerge from amongst the laminæ, forming an ornament of rare and simple beauty.

ACUTE FOUNDER IN HORSES.

We find the following in that excellent little work, *The Horse Owner's Guide:*—

An inflammation of the laminae of the foot, originating in too hard work, or caused by cold. This disease is not confined to the hoof alone, but spreads over the sensible laminae or fleshy plates on the front and sides of the coffin bone. It is always accompanied by fever.

H. R.—Aconite—If there is inflammation, 6 drops every one, two or three hours.

Bryonia—When the limbs are stiff and the joints swollen, 6 drops every two hours. Veratrum, if it is brought on by violent exercise, same.

A. R.—Cold applications, and still better to put the horse in running water. If very violent, bleed the jugular and feet, two or three quarts.

FOUNDER, CHRONIC.—This is a species of founder that produces *less* severe lameness than acute founder.

H. R.—Aconite, arsenicum, with increased pain. Rhus tox., if there is a change for the worse after some exertion.

We suppose the letters "H. R." and "A. R.," mean homœopathic and allopathic remedy.

For the New England Farmer.

HINTS FOR THE SEASON.

MR. EDITOR:—Allow me to remind your readers who are not prepared to use their sugar orchards to their full capacity, that arrangements should now be made to procure buckets, storage, &c., that no time may be lost when the sugar season arrives.

At present prices—and there appears to be no prospect of any diminution very soon—there is no more profitable branch of farming.

Don't forget to throw on a few of the best brush for pea supports while getting the year's supply of fuel, and have them sharpened and laid aside in a convenient place for use next spring.

It makes winter more cheerful to hang up a few bits of fat meat where the chicadees can feed upon them and be safe from "puss." If there is no tree or shrub near the window, a small spruce or fir tree in a sheltered corner will afford a double gratification when stocked with such "fruit."

WM. F. BASSETT.

Ashfield, Jan. 13, 1862.

CULTIVATION OF COTTON IN THE FREE STATES.—The Commissioner of Patents has issued a Circular, in which he says the cultivation of cotton in the middle portion of the Free States is beginning to attract attention. To prevent failures in its cultivation, it is proper to remark that it is a principle in vegetable physiology that tropical plants can never be acclimated North, except by a repeated reproduction of new varieties from the seed. The attempt to grow Sea Island cotton, such as is now brought from Hilton Head, would

prove a failure in any portion of the Free States. The only variety capable of successful cultivation in those sections now seeking its introduction, is the green seed cotton, such as is now being raised extensively in Arkansas, Missouri, Tennessee, and portions of Kentucky, which produces the white fibre. The seed should be obtained from these localities. The modifications of soil and climate will influence the size of the plant, the length and fineness of the fibre, and the product of the crop. No reasonable doubt is entertained of the success of the culture in all the mild portions of the middle States, and efforts are now making by this division to procure the proper seed for distribution. The Commissioner further says the cultivation of sorgho the past year settles the question of its entire practical success, and that one of the difficulties presenting itself is the want of pure seed. To meet this want, this division has ordered seed from France for distribution this ensuing spring.

Remedy for Ringworms.—The *North British Agriculturist* says that the disease locally known as ring worm or tetter, which shows itself about the head and neck of young cattle, in the form of whitish dry scurve spots, can be removed by rubbing the parts affected with iodine ointment. The disease may also be combated by the use of sulphur and oil; iodine ointment is, however, to be preferred. As this skin disease is easily communicated to the human subject, the person dressing the cattle should wash his hands with soap and hot water after each ointment.

LADIES' DEPARTMENT.

For the New England Farmer.

IMPROVEMENT IN SOUPS.

Mr. Editor:—The Neapolitans always add grated cheese to Bouillon, maccaroni and vermicelli soups, and thus very much enrich them in flavor and nutritive value. An insipid soup may thus be at once rendered quite palatable, and if crumbs of toasted bread are added, quite a substantial dish may be made of it. Those of your readers who wish to practice economy at the table, —and I presume there are many such—will find they can save at least half the meat they would otherwise consume, by introducing a good soup at their dinners. The making of soup from the bones of the previous day's dinner is well known to all housekeepers, though all do not know how to make the most of these materials. We will here merely suggest the trial of the one additional article above named, as it may be put in by those who like it; the grated cheese being placed on the table, a comparison of the soup with and without the cheese may be readily instituted. From one to two tablespoonfuls of grated cheese to a plate of soup is the proportion. Try it once, and you will be sure to repeat the experiment. Pieces of cheese that have become dry may be used up to great advantage. The Neapolitans use parmesans, but any cheese will answer—we like the Dutch, for this purpose, as it is dry, salt and high-flavored. The French highly value soups, and many of the poorer classes have hardly any other food than soup and bread.

One of the reasons why this diet has so little popularity among us is, that few cooks know how to make a good, palatable and nutritious soup, especially when they are limited to mere bones and vegetables for a basis. The story of the delicious soup made by a Frenchman with what appeared to one of our countrywomen as nothing more than a couple of pebble stones, she having loaned him the pot and supplied him with a few bones and condiments, illustrates what may be done with slender means when the cook understands his or her business. It will be remembered that the Frenchman presented the good woman with the pebbles, which she continued ever after to use as the basis of the soup, for the composition of which she was indebted to the example of her poor visitor.

C. T. I.

To Roast Beef.—Rib roast is that part where the ribs commence, on the fore quarter to the back of the ox. The first two or three are called the first cut, the next two or three the second cut; these two cuts are the best to roast. Cut off all the bones, and saw the ribs in two places, carefully peel or cut off all soiled or dirty places, if any, then wipe it all over with a clean cloth wrung out of cold water. Then rub it all over with fine salt, put it in the pan to roast with not too strong a fire to burn it. In half an hour take it out and drain the gravy into a bowl, baste it over with the fat, and dust on flour all over the meat; this must be done every half hour, until the meat is roasted, which will keep the gravy from being burnt. Take up the meat, skin off some of the fat from the top of the bowl and pour it into the pan, dust in some flour, let it boil, and stir it until it thickens.

A roast of ten pounds will take about two and a half to three hours to cook. If you roast before a fireplace, you can let the gravy remain in the pan.

A sirloin of beef, or a loin of veal, can be roasted in the same way. In the sirloin of beef, the suet must not be roasted—it will spoil the gravy.

Cleaning Silk.—The following is said to be an excellent recipe for cleaning silks: Pare three Irish potatoes, cut them into thin slices, and wash them well. Pour on them half a pint of boiling water, and let it stand till cold; strain the water and add to it an equal quantity of alcohol. Sponge the silk on the right side, and when half dry, iron it on the wrong side. The most delicate colored silk may be cleaned by this process, which is equally applicable to cloth, velvet or crape.

PROLONGING THE BEAUTY OF CUT FLOWERS.—A recent author, E. A. Maling, states that for keeping flowers in water, finely-powdered charcoal, in which the stalks can be stuck at the bottom of the vase, preserves them surprisingly, and renders the water free from any obnoxious qualities. When cut flowers have faded, either by being worn a whole evening in one's dress, or as a bouquet, by cutting half an inch from the end of the stem in the morning, and putting the freshly trimmed end instantly into quite boiling water, the petals may be seen to become smooth and to resume their beauty, often in a few minutes. Colored flowers, carnations, azaleas, roses and geraniums, may be treated in this way. White flowers turn yellow. The thickest textured flowers amend the most, although azaleas revive wonderfully. The writer has seen flowers that have lain the whole night on a table, after having been worn for hours, which at breakfast next morning were perfectly renovated by means of a cupful of hot water.

STEAMED BROWN BREAD.—Take two quarts of sweet skim milk, one tablespoonful of saleratus, one of salt, half a cup of molasses; put in equal quantities of rye and Indian meal until the dough is as stiff as can be conveniently stirred with a spoon, then put it in two two-quart tins. Place sticks across the bottom of the kettle to keep the water from the bread; place one of the tins on these, and the other in a tin steamer placed on the top of the same kettle, and let it steam three hours. Care should be taken to keep the water boiling, while the bread is cooking. When done, put it in a warm oven long enough to dry the top of it, not bake it. Yeast can be used instead of saleratus, if any prefer it, but the bread must rise well before putting it in the kettle.—*Selected.*

BLEACHING FLOWERS.—Light is as much a necessity to the healthy development of plants, as is a due supply of heat and moisture. In darkness, the green coloring matter, "chlorophyl," can not be developed, Advantage is taken of this circumstance in the bleaching of salads and vegetables, and the same process is now being applied to flowers. It appears that in Paris there is a great demand for white lilacs for ladies' bouquets in Winter, and as the common white lilac does not force well, the purple "Lilas de Morly" is used. The flowers of this variety, when made to expand at a high temperature, in total darkness, are of a pure white; those of the Persian lilac will not whiten. *London Review.*

YEAST.—A baker in the army, celebrated for his excellent bread, gives the following receipt for making yeast: Boil one pound of flour, one-fourth pound of brown sugar and a little salt, in two gallons of water, for one hour. When milk warm, bottle and cork it close. It will be ready for use in twenty-four hours.

THE CATTLE MARKETS FOR JANUARY.

Believing that a brief summary of the weekly reports of the cattle markets will be convenient for reference and comparison, we publish the following abstract for January, and propose to give similar tables for each month during the year.

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Live Fat Hogs.*
January 2	1053	2600	500	2500
" 9	1964	3428	250	2000
" 16	1332	3328	100	1800
" 23	1084	2058	300	2000
Total for Jan.	5433	11414	1150	8300

PRICES.

	Jan. 2.	*Jan. 9.*	*Jan. 16.*	*Jan. 23.*
Beef cattle, ℔ lb.	4½@7c	4½@6½	4½@6½	4½@6½
Sheep, live weight	4½@5½	4½@5½	4½@5½	4½@5½
Swine, stores, wholesale	3 @4	3½@4½	4½@5½	3½@4½
Stores, retail	4 @5	4 @6	5 @6	4 @6
Live fat hogs	4½@4½	4½@4½	4 @4½	3½@3½

REMARKS.—Many more of the Western than of the Northern cattle are thoroughly fatted, consequently but few of the latter sell at the highest prices quoted, which are those for extra beeves. A few, and but a few Northern oxen, were sold for over 6c per lb. at the two last markets in January.

Working oxen and stores have not changed much in price during the month, otherwise than as their value has been affected by the price of beef, for which most of this class of stock has been purchased for the last four weeks. The range of our quotations is from $60 to $140.

Milch cows have sold better, perhaps, than most other kinds of stock, but at a very wide range of prices, say from $20 to over $50.

THE ERUPTION OF MT. VESUVIUS.

A whirlpool, some three hundred and sixty feet in diameter, has been formed in the sea near Torre del Greco, by the late eruption of Vesuvius. The sounding gave twenty-three fathoms of water, and the plummet brought up sand and sulphur. From a part of the circumference a tail, so to call it, about sixty feet in width, runs away in the direction of Sorrento, and is of a beautiful light green color. All the water here was tepid, had a strong sulphurous smell, and many fish have been destroyed. The eruption of Vesuvius appears to be increasing at latest dates instead of subsiding. There are eleven craters above Torre del Greco, all emitting sulphurous vapors, and the largest is from seventy to eighty feet deep and one hundred feet wide. From this point, after heavy rumblings and heaving of the surface, the ground was split open, and a fiery fissure was made almost to the outskirts of the city, through which the dread unseen power passed, opening the streets and laying bare some parts of the former buried town, and then running into the sea. Strangers are coming from all parts of Europe to Naples to behold Vesuvius in its glorious burning and devastating anger.